CALIFORNIA

OIL WORLD

Alaska Arizona California Colorado Idaho Montana New Mexico
Nevada Oregon Utah Washington Wyoming Western Canada

TWICE MONTHLY • SECOND ISSUE • APRIL 1961 • 54th Year Vol. 54 No. 8

TRETOLITE

BACTERICIDE

TEXAS ENGINEERS LIBRARY
COLLEGE STATION, TEXAS
MAY 12 1961

KILLS ALL BACTERIA

TRETOLITE COMPANY
X-CIDE
SAINT LOUIS, MO. · BREA, CALIF.

bacteriological surveys and service by experienced technicians

FOR ALL
WATER FLOOD SYSTEMS
FREE FIELD SERVICE

ASK THE MAN IN THE RED CAR

PETROLITE CORPORATION

SUBSIDIARY AND AFFILIATED COMPANIES
CANADA, Edmonton, Alberta • ENGLAND, London
GERMANY, Frankfurt, a. M. • VENEZUELA, Caracas

TRETOLITE COMPANY
OF CALIFORNIA
DIVISION
00 SO. PUENTE STREET. BREA. CALIF.

REPRESENTATIVES
ARGENTINA, Buenos Aires • BRAZIL, Rio de Janeiro • COLOMBIA, Bogota
ITALY, Rome • JAPAN, Tokyo • KUWAIT, Kuwait • MEXICO, Mexico, D. F.
NETHERLANDS, The Hague • PERU, Talara • TRINIDAD, Port of Spain

TX-61-2

BAKER WIRE LINE BRIDGE PLUG, PRODUCT 400-N

RELIABLE BRIDGE PLUG

In average wells or tough ones, its dependability is a matter of record.

Here is a bridge plug that commands a lot of respect. The evidence has been piling up for years that this is probably the most dependable bridge plug available anywhere.

It's got time on its side. Over the years we've refined it into a tool with a tremendous ability to take whatever comes its way downhole.

Whether you measure its life span in hours or in years, a Baker Bridge Plug masters the hydraulic forces in any well—from average wells to the hot, high pressure wells. Reliable is the right word for it.

Leading wire line companies set Baker Wire Line Bridge Plugs accurately and promptly. Other models can be set on tubing or drill pipe. They're made in drillable cast iron for permanent service, and in fast-drilling magnesium for temporary service.

BAKER

BAKER OIL TOOLS, INC. HOUSTON / LOS ANGELES / NEW YORK

CALIFORNIA
OIL WORLD

PUBLISHED TWICE A MONTH
By
PETROLEUM PUBLISHERS, INC.

KINZIE MILLER—President and Editor • RICHARD SNEDDON—Contributing Editor
LELA MONROE—Vice President • LARRY O. MILLER—Secretary and Advertising Manager
2404 WEST 7th STREET, LOS ANGELES 57, CALIFORNIA • DUnkirk 2-5218
BRANCH OFFICES
CHICAGO—FRED JONES & SON—Room 517, 205 W. Wacker Drive, Chicago 6
CLEVELAND—HOWARD F. McCLENAHAN—1900 Euclid Ave., Cleveland 15
NEW YORK—JAY TUTHILL—501 FIFTH AVENUE, NEW YORK 17
WASHINGTON, D.C. CORRESPONDENT—LORANIA K. FRANCIS

AUDITED PAID CIRCULATION ABC

SECOND ISSUE
APRIL, 1961
VOL. 54 • NO. 8
WHOLE NO. 2062
April 30, 1961

California Oil World is published twice a month at 2404 West 7th St., Los Angeles 57, California. Second-Class Postage Paid at Los Angeles, California. Subscription price $1 per year in U. S. and possessions, $2 in foreign countries including Canada.

Mo' about the Mohole

By RICHARD SNEDDON

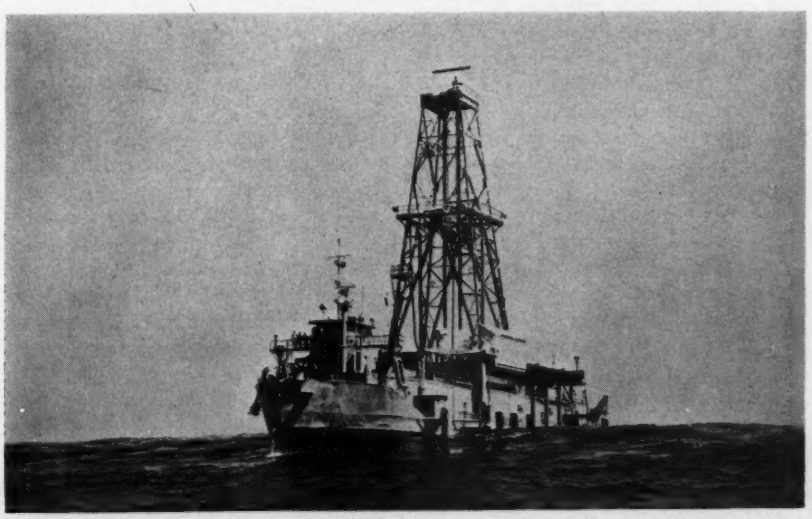
The Mohole Project was born in the minds of a few top-echelon scientists who had banded themselves into an informal discussion group, known (somewhat facetiously, no doubt) as AMSCC, which stands for American Miscellaneous Society. The name may have been facetious but their aims were altogether serious, and their particular brainchild, "penetration of the Moho and sampling of the Mantle" received the full blessing of the National Academy of Sciences, the National Science Foundation, and several private organizations. The result is that the Mohole Project is now a going concern, the first phase having been completed, under the auspices of the National Science Foundation and the National Academy of Sciences, with the aid of three panels of experts, one on drilling technique, another on site selection, and a third on scientific objectives and measurements, all capably coordinated and directed by the noted scientist, Willard Bascom.

Without in any way minimizing the contributions of the others in this unique project, the petroleum industry can nonetheless take pride in the part it has played and is playing in this journey through the Moho. The entire drilling setup, with most of its appurtenances, is a crystallization of many years of study in the technological theory and actual application of oilfield practices, both upland and offshore. It must be realized, however, that the physical penetration of the Moho, while it sounds like a pretty terrific accomplishment, is in itself a mere incidental in the over-all enterprise. What this penetration reveals through the eyes and minds of the scientists, in terms of the earth's constitution and history, will be the big payoff.

The floating rig, CUSS I, that did the preliminary drilling job, was designed by four oil companies, Continental, Union, Shell, and Superior, specifically to drill for offshore oil. The simple fact that now, under the ownership of Global Marine Exploration Company, it is being utilized in this significant fundamental research project is evidence enough that the oil industry is recognized as a rationalistic institution and that its orderly development has not only paralleled, but has been a direct aid to, progress in geo-scientific and related fields.

Perhaps before proceeding further it would be illuminating to take a brief glimpse into the past. Back in 1543, a Polish astronomer, Niklas Koppernigk ("Copernicus" in Latin) propounded the idea that the earth and planets revolved around the sun. This upset the tenaciously held theories of his predecessors and for a couple of centuries thereafter people went around with their heads tilted back and their eyes fixed unwaveringly on the heavens. It was not, indeed, until a quarter of a millenium later that a Caledonian geologist, James Hutton, published the results of his cogitating and investigating, especially an opus entitled "The Theory of the Earth," and turned at least some modicum of scientific thinking back to the minor piece of the Universe on which we mortals scramble!

Hutton is pretty generally conceded to be the initiator of all the



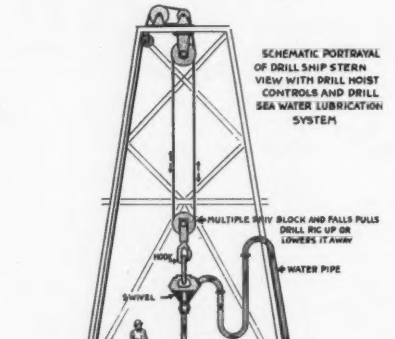
The CUSS-I drilling barge now owned and operated by Global Marine Exploration Co.

subsequent study that led to our modern geological conceptions. However, the fact is that Mr. Hutton was a trifle late in being born and to this day we are much better informed about the incalculable reaches of space, with their infinite assortment of gyrating and orbiting bodies, than we are about the little terrestrial ball, a mere 8,000 miles in diameter, that lies immediately under our feet.

Perhaps one of the reasons for the lag in earth study was the confirmed belief of ancient philosophers that, since they could see no consequential change taking place, our world was continuing to exist in the same more or less static form it had acquired at the creation. Hutton's logic not only dissipated that hypothesis but it focused the attention of the scientifically inclined on an intensely interesting and quite neglected field of contemplation and investigation. There is still considerable disagreement among the earth scientists as to the age of our globe, but most of the experts place it at about two billion years with a sizable plus or minus. They also seem to agree that it was formed when a hunk was torn off the sun in a sort of tidal wave when a reckless star passed a bit too close for comfort. The truant hunk finally rotated and orbited itself into what is known in geometry as an oblate spheroid; that is, a sphere that is flattened at the poles.

This smattering of elementary science is preliminary to a brief discussion of the constitutional structure of the earth's interior. When I was very young I was quite convinced that the center of the earth was an inferno of molten metals and belching flames to which wicked people were assigned and in which by some mysterious dispensation they were enabled to live in excrutiating agony for all eternity. Actually what makes up the "insides" is largely arrived at by deduction, because the most that anyone has ever penetrated the subsurface is a minor matter of five miles, and trying to project the total picture from that would be like describing the inside of an apple from an almost imperceptable scratch on the skin. Nonetheless, a great variety of data developed by geologists, astronomists, seismologists, physicists, chemists, mathematicians, and all the curiosity-smitten brood who think about such matters, has justified some very definite conclusions.

Spectroscopic analyses of the gases enveloping the sun show that they are largely composed of iron, magnesium, silicon, and oxygen. It is unnecessary to detail the methods of investigation, but it has been fairly well established that the earth is composed mainly of the same four elements and in about the same proportion: The process of whirling, riding in orbit, and cooling, to which our bit of sun has been subjected since it took off into space, has eventually stratified and congealed the whole thing into a gigantic orange-shaped body, of which so far we have been unable to pierce the rind.


SCHEMATIC PORTRAYAL OF DRILL SHIP STERN VIEW WITH DRILL HOIST CONTROLS AND DRILL SEA WATER LUBRICATION SYSTEM
MULTIPLE PART BLOCK AND FALLS PULLS DRILL RIG UP OR LOWERS IT AWAY
HOOK
WATER PIPE
SWIVEL
KELLY
ROTARY TABLE
DRILL FLOOR
WHIPSTOCK
SEA WATER PUMP
GUIDE SHOE
SEA WATER SUCTION
DRILL PIPE EXTENDS 2¾ MILES DOWN TO OCEAN FLOOR

The rind of crust consists roughly of 36 miles, more or less, of sedimentary deposits, volcanic rocks, etc.; after which comes the mantle, hundreds of miles of it, a dense mineral substance resembling peridotite*, that makes up by far the greatest portion of the earth's mass; then comes a molten zone of iron and nickel; and finally an inner core of these same two metals compacted to extreme solidity by the great pressure to which it is subjected. There is no clean-cut boundary between these strata, and their relative thicknesses have not been too clearly defined, but some interesting conclusions have been reached by the students of earth movement and related phenomena. Andrija Mohorovicic, a Yugoslavic geophysicist, noted a decided increase in the velocity of seismic waves at the supposed junction of the crust and the mantle. This, of course, added stout support to the compositional theory already expressed, and explains why the aforesaid junction is known as the Moho.

As a matter of fact, the study of seismological data (earthquake waves) is largely responsible for the entire compositional theory as it is accepted by most geoscientists at the present time. To most of us, their style of reasoning is a trifle abstruse, but while the average researcher may allow his imagination to run riot in private, it can be assumed with certainty that anything he releases for public consumption is based on completely rational considerations. However, while his deductions are entirely logical, his mind is never at rest until he can acquire the factual information that either affirms or disaffirms his reasoning. That is why the earth scientists are now so concerned about drilling through the Moho and sampling as far as possible what lies beyond. No one knows for sure what the effort may disclose, but it is certain, as all such exploratory ventures do, to extend the boundaries of our knowledge and open new channels of investigation to further research.

It was natural that it should be decided to drill out at sea, since here are to be found the lowest earth surfaces; that is to say the surfaces that lie closest to the objective. It was also natural that the directors of the project should look to the oil people for the actual drilling equipment and procedure, for in its search for offshore deposits the petroleum industry had already experimented widely in ocean drilling. Many types of floating and anchored units had been employed in pioneering the art of offshore operation and there was a wealth of experience available for consideration. It was eventually agreed that the vessel CUSS I, owned by Global Marine Exploration Company, of which Robert Bauer is president, came closest to what the project seemed to require in the way of a drilling unit, and it

was hence employed.

There is no need for a detailed dissertation on the big barge here. Since it was first assembled in 1956 it has drilled more than 200,000 feet of sub-oceanic hole, and it has been described in magazines and newspapers all over the country. It has, of course, been modified in the meantime, and its latest adventure on the Mohole has brought it more attention than the birth of a Monacan princess. It has succeeded in drilling several core holes to depths on the order of 600 feet in the ocean bed off the coast of Baja California near the Island of Guadalupe in waters 11,700 feet deep, which is about two miles deeper than anything so far attempted. This completes the first phase of the total program and among other things establishes the fact that drilling and coring can be done from a floating site in very deep waters, which in itself is a major breakthrough.

Innovations in technique are (1) maintenance of barge position by four steerable outboard motors which are controlled according to radar and sonar sensings from a ring of fixed buoys around the drill site; (2) a tapered guide shoe or funnel which leads from immediately below the rotary table and projects 10 feet into the water; and (3) a tapered casing fastened to the landing base on the ocean floor. The guide shoe and the tapered casing are designed to distribute the bending load on the more than two miles of 4½-inch drill pipe. In drilling, the pipe is suspended from a 98-foot derrick, passes through the guide shoe via a large center-well, and thence to the ocean bed. A diamond core bit does the penetrating, seawater is the drilling fluid, and the hole is uncased.

It should again be emphasized that this is not an oil project, although it is of direct interest to many oil people. The experimental drilling phase of the Mohole Project was shaped to achieve two prime objectives: (a) to test the feasibility of holding an unanchored drilling vessel in a fixed location, within tolerable limits, by so-called "dynamic positioning," and (b) to determine exactly what problems are involved when drilling from a floating site through turbulent ocean waters in excess of two miles deep.

From the results so far obtained, there is reason to believe that the dynamic positioning system was effective, and there is little doubt that at least some of the problems of deep ocean drilling have made themselves known, so that the preset objectives have been partly achieved.

As this is being written, work has been temporarily halted, undoubtedly for the purpose of evaluating what has been accomplished to date. Scientists, because of their powers of logic, are in the main cautious beings, and just barging ahead on a program of this magnitude without frequent stocktakings is not their way of working. Methods have to be reappraised; cores have to be examined minutely by geologists, paleontologists, chemists, physicists, and a whole brigade of inquisitive beings, each seeking through his own special medium to interpret and deduct and then correlate his findings with those of his fellow researchers.

Out of all this deliberation and consultation will be hatched the next series of moves in the assault on the mantle, or such amendments as may be required in already designed plans. While scientists are inclined to be ultra-cautious, they are, peculiarly enough, at the same time boldly persistent. It is almost a certainty, thus, that before very long we will be wresting some of her most zealously guarded secrets from that tenacious old lady, Mother Nature. How much these will benefit the oil industry is at the moment rather unimportant. The great excitement is that we shall be helping in a very substantial way to illumine one of the world's dark spots and so to broaden the scope of human understanding. For that opportunity we should be grateful.

French Drilling and Coring Device Tested on Mohole Project

A French drilling and coring device, believed never to have been previously used in the United States, was successfully tested in the final operations of the experimental drilling program for Project Mohole near Guadalupe Island, the National Science Foundation and the National Academy of Sciences—National Research Council announced recently.

The device, known as a turbodrill, rotated a diamond-studded bit at high speeds for two hours through dense basaltic rock more than 500 feet below the ocean floor. Unlike the customary drilling bit, which is rotated at relatively slow speeds by the turning drill pipe, the turbodrill was rotated independently at a speed of 750 revolutions per minute by sea water pumped down the stationary drill pipe at 1,750 pounds per square inch.

By means of a wire line retrieval system, two small cores of the basaltic and overlying material were retracted through the drill pipe to the deck of the drilling barge for examination.

The diamond bit supplied by Christensen Diamond Products Company was retrieved after two hours of drilling in basalt and found to be in excellent condition. Two short cores were taken with this drill and retracted on a wire line. One of these sampled the contact between the dark basalt and a light-colored overlying rock which may be dolomite.

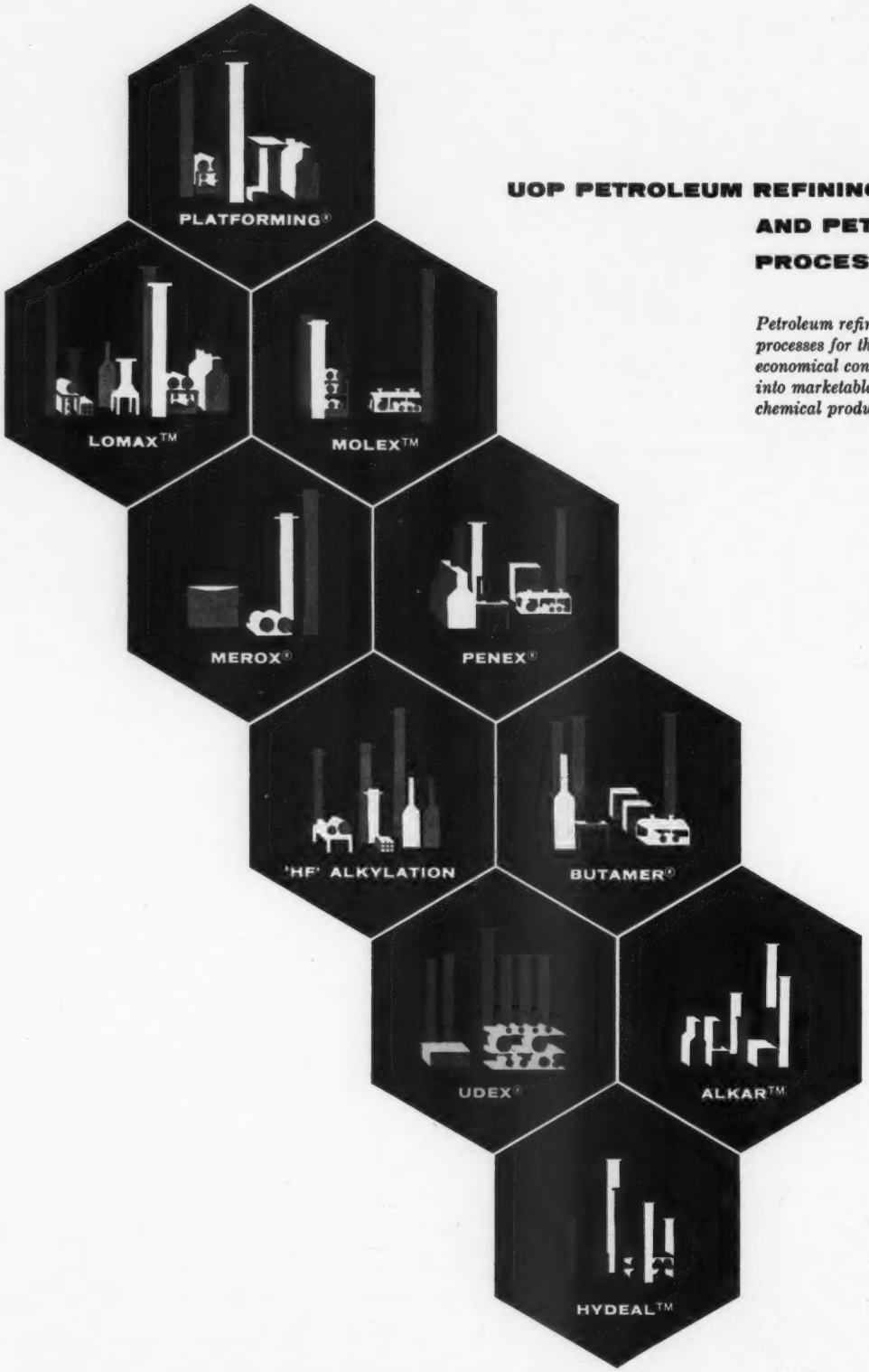
Field Trip Planned For A.I.M.E. May 6

The annual spring Field Trip of the Los Angeles Basin Section Society of Petroleum Engineers of the AIME will take place Saturday, May 6, as announced by C. E. "Chuck" Downey, Youngstown Sheet & Tube Co., Field Trip chairman.

The itinerary includes: Signal Oil & Gas Co. Rancho Properties (ACT equipment, refrigeration gas separator, town-lot operations); La Brea Tar Pits with talk by Dr. William Easton, Geology Dept., USC; IBM Building Tour (use 1620 Computer and demonstration of 7070 Computer); Standard Oil Co. propane and butane underground storage facilities at El Segundo; Southern California Gas Co. underground storage facility at Playa Del Rey. Trip starts at 8:45 a.m. from the parking area at the Rancho Golf Course. Bus transportation will be furnished.

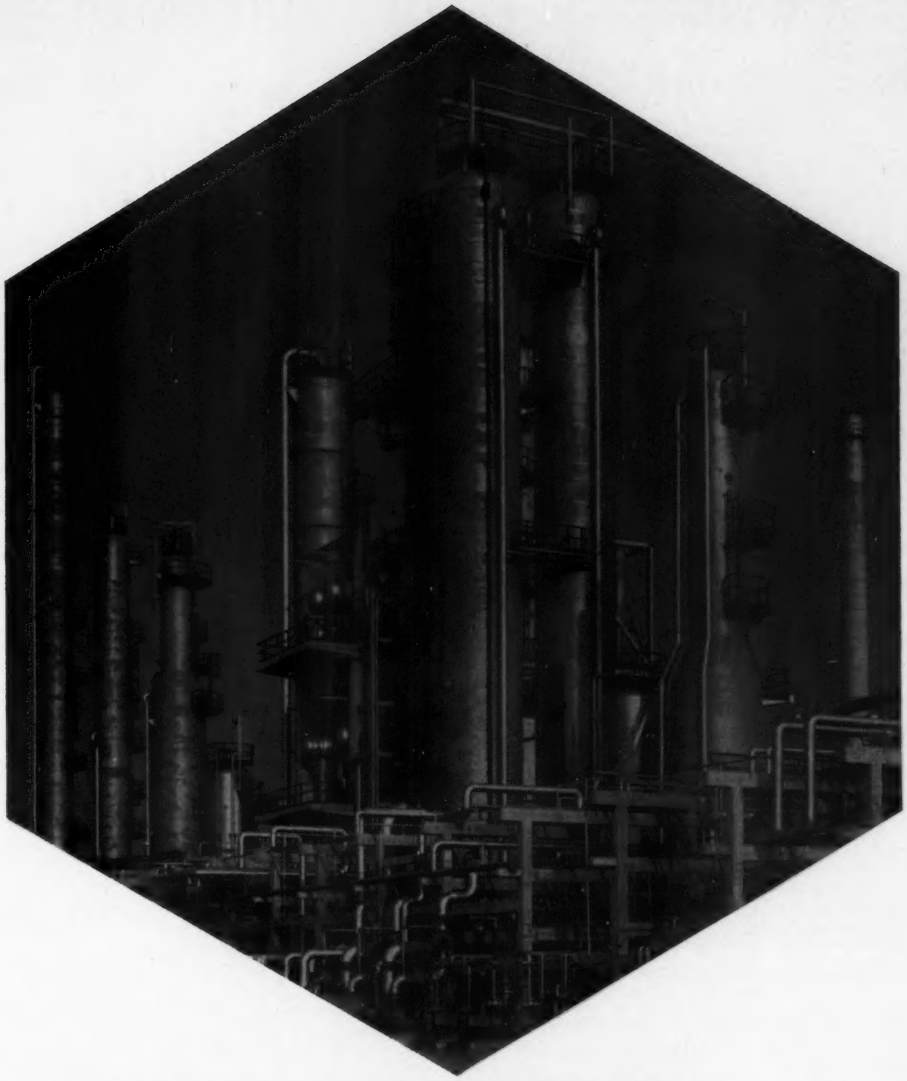
Trip will be over about 4:05 p.m. Cost per person is $3.50, which includes transportation, lunch (at the IBM Bldg.) and a brochure explaining visit points.

Tickets are available by contacting ticket chairman Carl Buchholz, Schlumberger Well Surveying Corp., 3611 Long Beach Blvd., Long Beach 7, GArfield 4-8581.



UOP PETROLEUM REFINING AND PETROCHEMICAL PROCESSES

Petroleum refining and petrochemical processes for the efficient and economical conversion of petroleum into marketable fuel and chemical products.



produce petrochemicals profitably with UDEX

UDEX® is being widely used by refiners throughout the world for profitable production of high purity petrochemical intermediates, benzene, toluene and xylenes. Udex aromatics meet the highest standards of purity. In addition, Udex is a valuable process for separating high and low-octane gasoline fractions to control the quality of finished gasolines.

Udex provides ideal market flexibility by enabling refiners to make products that meet changing product demands. Low utility consumption and low solvent costs make Udex unusually economical to operate.

Udex has operational flexibilities too. Feed to a Udex unit can vary widely in both quantity and composition, yet the stringent specifications of the product output will be maintained. Originated by Dow Chemical Company, the Udex extraction process was developed and is made commercially available by UOP.

UOP offers a wide range of petroleum and petrochemical processes to refiners everywhere in the free world. A variety of technical services are also available to insure the profitable performance of these processes. Let UOP engineers evaluate your processing needs now.

WHERE RESEARCH TODAY
MEANS PROGRESS TOMORROW

UOP®

UNIVERSAL OIL PRODUCTS COMPANY

30 Algonquin Road, Des Plaines, Illinois, U.S.A.

General Wedemeyer to Address A.P.I. Banquet At 34th Annual Meeting in L. A. May 11 and 12

General Albert C. Wedemeyer, U.S.A. (Ret.)
Banquet Speaker

Topics of intense international, national and technological interest will be discussed for the benefit of members planning to attend the 34th Annual Spring Meeting of the A.P.I. Pacific Coast District, to be held Thursday and Friday, May 11th and 12th, at the Los Angeles Biltmore Hotel.

General Albert C. Wedemeyer, U.S.A. (Ret.), will speak at the banquet Thursday evening on **Strategy for Peace.** The General, author of the famous Wedemeyer Report, by reason of his wide experience, is well qualified to speak on this vitally important subject, in view of the current international situation.

A West Point graduate, his service prior to World War II included stations overseas in Manila, Tientsin and Corregidor, graduation from the General Staff school, and two years' study at the German War College in Berlin from 1936 to 1938, a time of great political significance. In World War II, he was a member of the War Plans Division of the General Staff. As Chief of the Strategy & Policy Section Operations Division in 1942, Wedemeyer attended the major conferences on Allied Strategy. In 1943, he went to India, where he became the Deputy Chief of Staff of the Southeast Asia command under Lord Mountbatten. In 1944, as Lieutenant General, he was named to succeed Gen. Stillwell as commander of the U. S. forces in China, at which time he also served as Chief of Staff to Generalissimo Chiang Kai-shek.

In 1947, designated by the President as Special Envoy with Ambassadorial rank, he was dispatched to the Far East to make a survey of conditions in China and Korea; the result of this dramatic mission was the Wedemeyer Report.

Upon his return, he served for two years on the General Staff. From 1949 to his retirement in 1951 he was commander of the Sixth Army, with headquarters in San Francisco. He then became active in industry as vice president and director of Avco Mfg. Co., and of Rheem Mfg. Co. in New York. He has since retired to his farm in Maryland, where he is currently writing his memoirs.

In view of the turbulent international situation, it is anticipated that the general public will be unusually interested in the General's point of view. Consequently, members who have not yet made their banquet reservations are urged to do so at the earliest possible moment. Tickets may be ordered from E. L. Hughes, BJ Service, Inc., 6505 Paramount Blvd., Long Beach 5.

The Thursday afternoon session will be highlighted with an address by Gage Lund, vice president and director of Standard Oil of California, and one of the top production men in the country, who will speak on the proposed wilderness legislation under consideration by Congress, and its possible effects upon the future of the petroleum industry in the U. S.

Oil men attending this important A.P.I. meeting can look forward to a highly interesting two-day session. Following the opening at 9:00 a.m. Thursday with a

Gage Lund
Management Address

E. E. Embury
General Arrangements Chairman

J. B. Hundley, Jr.
General Chairman

Floyd E. Schoonover
Chairman, Production Division

"Welcome to the 34th Annual Meeting" by General Chairman J. B. Hundley, Jr., a variety of topics relative to both drilling and production will be discussed by experts in these fields. The Drilling and Production Chairmen, W. G. Christensen and R. G. Crippen, have planned the following program:

PROGRAM

Thursday Morning Session—Biltmore Ballroom

"WELCOME TO THE THIRTY-FOURTH SPRING MEETING"
by J. B. Hundley, Jr., *Richfield Oil Corp.*, General Chairman, District Spring Meeting.

"API SPECIFICATION FOR SUBSURFACE PUMPS AND FITTINGS"
by A. M. Cooper, *Standard Oil Co. of Calif., Western Operations, Inc.*

"CASE HISTORY OF A SMALL GAS PURIFICATION PLANT – EDISON OIL FIELD, CALIFORNIA"
by Floyd E. Schoonover, *Humble Oil & Refining Co., Monterey Division.*

"FIVE-SPOT WATER FLOOD PERFORMANCE, EC-2 POOL, DOMINGUEZ FIELD, CALIFORNIA"
by J. P. Murphy and D. W. Chenot, *Shell Oil Company.*

"PROPANE AND ETHANE INJECTION AT THE SOUTH COLES LEVEE UNIT"
by D. J. Everitts, Wm. Hill Elliott, Jr., and R. B. Campbell-Taylor, *The Ohio Oil Company.*

"SYMPOSIUM ON HIGH VOLUME LIFTING EQUIPMENT AND METHODS"
Moderator: D. L. Roberts, *E. B. Hall & Company.*
Authors: Everett J. Lester and Wm. H. Silcox, *Standard Oil Co. of California, Western Operations, Inc.;* James P. Lewis, *Richfield Oil Corp.;* and George O. Suman, Jr., *Shell Oil Co.*

Thursday Afternoon Session—Biltmore Ballroom

BUSINESS MEETING

"CONTROL OF BACTERIAL CORROSION"
by R. F. Flammang, *Magna Products, Inc.*, and C. C. Wright, *Oil Well Research, Inc.*

"GAS STORAGE IN THE WEST MONTEBELLO FIELD"
by J. H. N. Ellis, *Pacific Lighting Gas Supply Co.*

"EMPLOYEE EVALUATION IN ITS PLACE"
by F. B. Loe, F. R. Schmieder, W. E. Spear, *Shell Oil Co.*
MANAGEMENT ADDRESS—Gage Lund, *Standard Oil Co. of Calif.*

Thursday Evening Banquet Session
6:30 p.m.—Biltmore Bowl

"CITATIONS FOR SERVICE"
by Gage Lund, *Standard Oil Co. of California,* Vice President for production, A.P.I.

"STRATEGY FOR PEACE"
Address by General Albert C. Wedemeyer, U.S.A. (Ret.).

Friday Morning Session—Biltmore Bowl

"REDUCTION OF SHALLOW DRILLING COSTS BY ORGANIZATION AND PLANNING"
by James E. Armstrong, *Armstrong Fowler, Inc.*

"INHIBITED DRILLING FLUIDS – EVALUATION AND UTILIZATION"
by Jay P. Simpson and H. V. Sanchez, *Baroid Division, National Lead Co.*

"CONTRACTING PROBLEMS IN THE SACRAMENTO VALLEY"
by V. R. Coats, Jr., *Brown Drilling Company.*

"EVALUATION OF FRACTURING MATERIALS FOR OPTIMUM WELL STIMULATION"
by E. N. Alderman, D. J. Mack, and R. S. Ousterhout – *Dowell, Inc.*

"FRACTURING OPERATIONS, NORTH TEJON FIELD"
by J. P. Lavery, Jr., *Reserve Oil and Gas Company.*

"THE SUMMERLAND OFFSHORE DRILLING PLATFORMS AND THEIR DIFFERENCES"
by C. M. Shields and N. B. Shumate, *Standard Oil Co. of Calif., Western Operations, Inc.*

Friday Afternoon Session—Biltmore Bowl

"REDUCTION OF DRILLING COST IN CALIFORNIA BY THE USE OF ENGINEERED HYDRAULIC PROGRAMS"
by B. M. Bumgardner, *Hughes Tool Company.*

"PRE-EMPLOYMENT TRAINING FOR THE OIL INDUSTRY AT ORANGE COAST COLLEGE"
by George L. Guthrie, Professor, *Orange Coast College.*

"STANDARD CARD AND TABULATION FORMS FOR PRODUCTION REPORTS"
A report of the Study Committee on Machine Methods for Data Processing and Computing, Committee on Production Practice, Pacific Coast District; presented by W. L. Coultas, *Shell Oil Company,* Chairman.

Adjournment

Registration will begin Thursday morning at 8:00 a.m.

Waukesha Motor Company, Huntington Park

Waukesha Motor Company, Bakersfield

Waukesha Expands Southern California Facilities

In line with its Southern California program of expansion of sales and service facilities, Waukesha Motor Company has recently acquired from Bethlehem Supply Company its engine sales and service department, known formerly as Waukesha Southern California in Los Angeles, Bakersfield and Ventura.

New quarters have been established at 5608 Soto Street, Huntington Park, where large stocks of service parts for Waukesha and Climax engines are maintained and new engines are available for immediate delivery. In addition there are new service repair shops, as well as assembly shops, a complete engineering department and an adequately equipped field service group, including service maintenance men and fully equipped service trucks. The men are factory-trained to repair and maintain the engines in the field. There is a full staff of sales engineers capable of making proper selection and application of internal combustion engines, providing power to practically any type of service required.

In Bakersfield the Waukesha Motor Company facilities are located at 1221 33rd Street, where Art Alman is manager. In Ventura a repair shop has been opened under the direction of Jim Thrasher, manager. Both of these facilities have been enlarged to include good and adequate service parts stock for all Waukesha and Climax engines, including accessories to fit any make of engine, such as clutches, filters, spark plugs, ignition equipment, safety controls, automatic controls and any service required for an internal combustion engine. There are service trucks with factory-trained mechanics using factory-engineered parts and factory methods.

Waukesha Motor Company provides engines for rent or lease with monthly maintenance or maintenance by the job.

Service is provided 24 hours a day and Waukesha engages in supplying engine power and service not only to oil field organizations but to agriculture, general construction, transportation, marine installations, logging, municipalities, water districts, mines and all other general heavy-duty industrial requirements. One of its newest products includes a line of air-conditioning equipment. A new line of gas turbines is in process now and will be ready for the market at an early date.

Reserve Oil & Gas Steps Up Drilling Activity

Jasper W. Tully, president, Reserve Oil and Gas Company, announced that its 1961 drilling program is proceeding at a rapid pace, with six wells presently under way and two additional locations ready to start.

Two exploratory wells are drilling in the Powder River Basin of Wyoming. One is nearing its 7,600-foot Minnelusa Sand objective and the other has just begun, scheduled to test the Dakota Sand at about 8,000 feet. Additional drilling is planned in the immediate area and the entire program covers about 14,000 acres for Reserve and its associates, according to Tully.

In California an exploratory gas well is scheduled for immediate commencement on the Webb Tract to test the Midland Sand, which is the major reservoir in the large Rio Vista gas field, three miles northwest. Reserve and associates hold approximately 3,000 acres in the play.

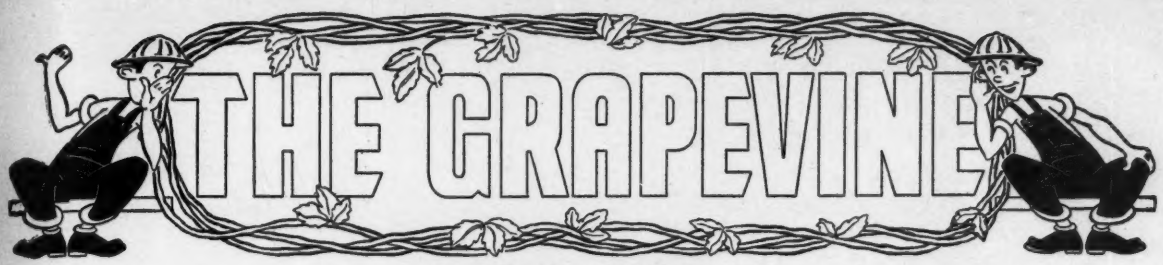
Location has been staked for two additional gas wells on Liberty Island to extend the new Eocene field discovered by Reserve last December. Two wells already completed on the property demonstrate excellent productive characteristics.

Four wells on the company's Tejon properties are in progress. Two wells are being drilled to the Vedder zone: well No. 318-18 is drilling below 11,000 feet and well No. 314-20 has just been spudded. Equipment is moving in to drill two wells: RST No. 16-29 to the JV Sand in the Windgap Area and well 62A-34 to the Transition zone in the Tejon-Grapevine field.

Four-Company Offer Is High Bid for California Tidelands Lease

The combined offer of $1,355,111 made by Richfield Oil Corp., The Ohio Oil Co., Socony Mobil Oil Co., and Tidewater Oil Co. was the high bid for 4,250 acres of submerged lands off the Santa Barbara, Calif., coast. The state-held area is known as Parcel No. 3. Only other bidder was Texaco Inc.

The bid will be analyzed by the California State Lands Commission and will be accepted or rejected within 30 days.



By RICHARD SNEDDON

The Stillman's Lament

Had a recent visit from Johnny Green, president of Atlas Oil Company and noted yachtsman, from Santa Barbara. While we were chatting in the lounge at the Petroleum Club, along with Stan Oatway, Johnny introduced another piece of petroleic folklore in verse which has been duly added to our collection of inanities and is repeated here for your delectation. It is in defense of the stillman. There is a popular idea floating about that cracking was discovered by a stillman who fell asleep on the job and allowed his still temperatures and pressures to rise above the prescribed limits. When he awoke the distillate had a higher gravity than he had ever noted before. He applied for a patent but there were so many people who could prove prior conception, that is, of the idea of sleeping on the job, that his application was denied. The poem is a cute thing that goes like this:

So much depends on the
stillman's skill
That the skillful stillman
is seldom still.
If he opens a valve that he
ought to close,
Up with the still the
stillman goes.

Avast, There, Yon Landlubbers!

Speaking of yachtsmen reminds us that Jack Mills, the former Sunray legalite now giving his all for the Citizens National Bank, is an able seaman aboard the yacht, Capricious, in the Los Angeles to Mazatlan race which is just finishing as we write. We understand that Jack is an old hand at this sort of thing; can unreef the main halyard or spike the jib boom with the best of them, and is so conscientious about the whole thing that he positively will never smoke abaft the binnacle. Don't know whether Andy Kirk or Stan Natcher were conscripted for this run, but they are both experienced seafarers who have been on the Honolulu race a time or two. Andy is the Chef Milani of the oil industry and is much in demand to run the galley and keep the crews in top shape through the medium of scientific feeding. Andy claims that most people don't have the slightest conception of food values. "For example," he says, "you'd never think of peanuts as fattening, but look at the elephant!"

How Are Your Contact Lenses?

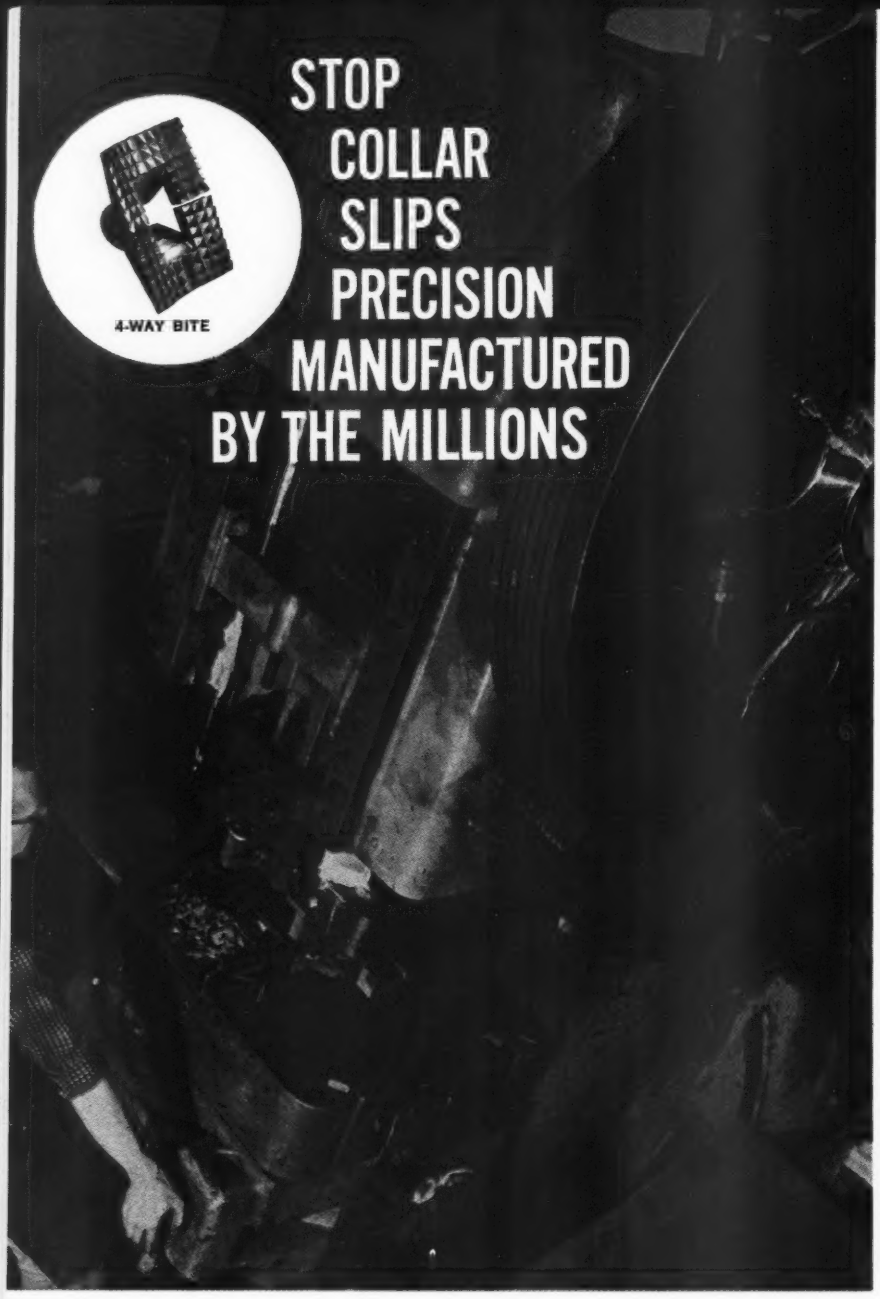
The other day we received a neat little package from that inventive fellow, Weldon Charles Erwin, better known as Hut, who used to be a wheel in the McCullough Tool Company enterprises and is now, as far as we know, devoting himself mostly to the development of new ideas and new gadgets. The package contained a smart looking device for putting contact lenses on and taking them off, which, of course, we personally can't use. The only thing that would help our particular species of eye strain would be to take all girls between the ages of 16 and 60 off the streets and confine them to their homes. However, we have a good friend who wears contact lenses and we're going to ask him to model this latest creation for us, so all you luckies who wear these things, stand by for an exciting report from the Snedderhorn optical laboratory. Hut, by the way, is a native of Santa Paula, an ex-Chevronite and was for a time one of the youngest cable-tool drillers in California.

The Murder Club

Recently, hosted by that delightsome chap, Dee Taylor, who formerly was one of Shell Oil Company's better geologists, and is now simply luxuriating at his beach home down Laguna way, we attended a meeting in the Chapman Park Hotel of that highly exclusive coterie known as The Murder Club. We had fully expected to see someone being "done in" but nobody was even hurt, and as a matter of fact, it turned out to be a highly educational and altogether enjoyable seance. Particularly impressive was the opening dissertation on areas of agreement among world religions, presented by the secretary, a brilliant young lawyer, Jim Nelson, associated, we believe, with Earl Hightower, who is also a member of the Murder Club. This was an exceedingly well organized exposition and it was quite obvious that the speaker was thoroughly informed and altogether in love with his subject. He spoke with lucidity and clarity, and answered an avalanche of questions so satisfyingly that his total performance was what in England would easily be termed "tophole." The rest of us were permitted to comment on any phase of the matter but were so overshadowed by the principal that it would be better not to comment on the comments.

Some History

That was the **piece de resistance,** but it was preceded by a round robin debate on the somewhat elusive pleasures of work. This was started on its way by one of the experienced members, Lee Horchitz, and was productive of more differences of opinion than an Irish donnybrook. It was all very orderly, however, thanks to the excellent control of the chairman pro tem, Charles Larzelere, pioneer Signal Oil & Gas Company executive, who did a worthy stint of deputizing for President DeForrest Home. We were pleased no end that Bob Friberg took time out to apprise the other guest, Claude Smith of the Sheriff's Office, and ourself, of some of the Club's background. We didn't have the equipment with which to make notes but as nearly as we can remember, it was started over in England by Conan Doyle, the noted

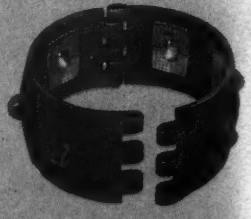


STOP COLLAR SLIPS PRECISION MANUFACTURED BY THE MILLIONS

At B&W advanced engineering · precision manufacturing keep QUALITY UP . . . PRICES DOWN

This giant press produces stop collar slips in huge quantities... each uniform in quality and accurately die formed. Each slip becomes an integral part of B&W automatic stop collars and is precision engineered to give a uniform 4-way bite. The outer loop can be hammered flush with the casing, which sets the slip and causes its teeth to bite into the casing in each of 4 directions. This action locks the collar tight and prevents movement up, down, right or left. **Only B&W has this specialized equipment, which gives you precision manufacturing to produce higher quality products... at lower prices.**

Full Circulation Solid Automatic Stop Collar – Series 4100



Hinged Automatic Stop Collar – Series 4500

The Strongest Stop Devices on the Market

Centralizers

HINGED HELICAL SERIES 2900 AVAILABLE WITH LEFT AND RIGHT HAND BOWS

HINGED AUTOMATIC STOP COLLAR SERIES 4500

TURBOCOLLAR COMBINATION 58 SERIES 5800

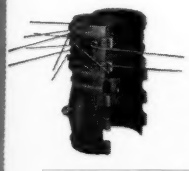
TUBINGLESS COMPLETION EQUIPMENT... for use on single or multiple string completions

SPACELIZER Mn. BRONZE TYPE SERIES 61

SPACELIZER STEEL TYPE SERIES 61005

NU-COIL SPACELIZER COMBINATION 61-6 SERIES 61006

NU-COIL SCRATCHER SERIES 5600



COMBINATION 48 SERIES 4800

FOR A GOOD CEMENT JOB... rely on B&W Products

Specializing ONLY in Well Completion Equipment

B&W offers the most highly engineered and precision manufactured line of Well Completion Equipment available. Its entire manufacturing facilities have been completely converted to accommodate the most advanced production techniques ever used in manufacturing these types of products. The latest machinery, special tooling, engineered steel dies, heat treating, and outstanding metallurgy have all been combined to bring you stronger, more durable products, manufactured to exacting requirements, and maintaining rigid uniform quality.

OUTSTANDING TECHNICAL SERVICE

In addition to these high quality, precision manufactured products, B&W provides experienced technical service to assist you in planning your cement job and installing the proper equipment. Trained B&W specialists are available in every area to serve your needs.

YOU GET THE BEST IN EQUIPMENT and SERVICE WHEN YOU BUY FROM B&W

The Industry's Most Complete Line Of Well Completion Equipment

B & W INCORPORATED

GULF COAST
BOX 5266
HOUSTON 12, TEXAS
WA 3-8603

WEST COAST
19706 S. NORMANDIE AVE.
TORRANCE, CALIFORNIA
FA 1-2463

TECHNICAL RIG SERVICE AT YOUR CALL!

writer of the Sherlock Holmes detective classics, and was originally known as "The Crime Club." It is still in existence over there, but the name has been changed to "Our Society."

The Local Offshoot

One of the members of the English group was the late A. Moresby White, who later became well and favorably known in the Los Angeles area as a practicing attorney. Among Mr. White's close friends was the late Judge Charles A. Fricke, in whose court we have functioned on several occasions as a juror, and for whose complete impartiality, keen sense of duty, and boundless knowledge of the law, we have always held him in high admiration. In the course of their casual chatting Mr. White is presumed to have described The Crime Club to Judge Fricke and these two gentlemen forthwith founded The Murder Club on much the same pattern as the English organization. Mr. White became the first president. That was in 1925, so it has been in existence for 36 years. In reality it is now a discussion club where a group of intelligent gentlemen can sit down at regular intervals, enjoy an aperitif if they are so inclined, and can dilate on topical questions without getting high blood pressure. You see, no one can hog the rostrum, for every speaker is timed silently by a sand glass while he is holding forth. Guests receive the same courtesy as the regular members and are controlled by the same process. Besides those already mentioned, it was our pleasure to meet and in a manner contest with, Roland Pierce, who is the formulator of the conversation and discussion programs and is himself an eloquent expositor; Norman Hackstaff, Leonard Dykes, Edward Reed, Donald Reagan, fine gentlemen all, and, of course, our good friend, Dee Taylor, to whom we are indebted for a most entertaining and enlightening evening. Incidentally, by way of conclusion, The Murder Club remains the only child of the Old Country organization. There is none other like them in all the world.

Attention Petroleum Librarians!

We are in receipt of a note from Maryann Duggan, chairman of the Petroleum Section of the Special Libraries Association, announcing a convention of her group to take

place in San Francisco at the Sheraton Palace Hotel, May 28th through June 2, 1961. The purpose of this organization is one with which we are entirely in sympathy—the dissemination of needed information with the most dispatch and the utmost clarity, to all the places where it is needed. The role of information in management grows more important daily, and here's the place to find out the latest techniques for spreading the word on the latest techniques. An excellent program has been arranged, featuring experts in translation, abstraction, presentation, classification, and all the multiple phases of this fascinating business. Besides the serious part, there are receptions, banquets, tours, and diversions of infinite variety, and all of it, mind you, in Herb Caen's Baghdad by the Bay, the entertainingest city in the U.S.A. So get with it, you librarians; you'll never find a better excuse for going to San Francisco. Huh, who needs an excuse?

The Larsons in Macao

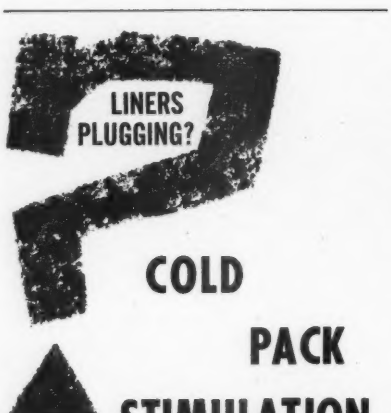
From that noted globe-girdler, Swede Larson, comes a card, datelined from MACAO in Southeast China, the home of Dr. Sun Yat-sen, first graduate of the College of Medicine in Hong Kong, and outstanding Chinese statesman. He was perhaps most famous in this country for being the husband of Chingling Soong. The other Soong sisters were Eling, who married Dr. H. H. Kung, a U. S. educated one-time minister of finance in the Cantonese government, and Mayling, better known as Madame Chiang Kai-shek. All the Soong girls were graduated from American colleges and have since become world famous, and just by way of explanation, the dissertation was prompted by the fact that Swede's postcard carried a picture of Dr. Sun Yat-sen's home in Macao. Swede suggests that we Petroleum Clubbers kick out dominoes and take up fan-tan, which is more complex and more interesting. As for us, dominoes is complex enough, but we are grateful for the suggestion. The Larsons will be landing back home in mid-July and will probably start immediately laying plans for another trip.

Bits of This and That

Tony Alcorn, the NATO fellow, is still traveling about Europe as we write and appears to be feeling o.k. again. He writes from Madrid, where he seems to be enthralled with the senoritas. The word is that he'll be back in his old haunts about the middle of May. We had an interesting visit with Senor Ernesto Englander of Mexico City recently. He tells us that his name was originally McEnglander and that there are slight traces of heather between his toes. The Senora Englander is a native of Los Angeles, and they are planning to attend the L.A. Petroleum Club's Cinco de Mayo party as delegates of the Mexico City Petroleum Club come May 5, 1961. Congratulations to Russ Sherman, now executive vice president of Lloyd Corporation, and we'll say this, Russ couldn't have happened to a nicer company! The same to Paul Carver, the former flying-horseman, who has taken over as vice president and director of Great Basins Petroleum Company, in charge of exploration and property acquisition!

More of the Same

We note that Ralph Cormany is now associated with Eugene C. Beck in a general law practice up in the bustling bailiwick of Oxnard, and we wish him all the best in his new enterprise. Ralph is real nice people. About the time people are clamoring for this issue at the newsstands, H. A. "Doc" Bowles, the Continental prestidigitator, will be dazzling the girls of the L.A. Desk & Derrick Club in the Music Room at the Biltmore.



SIEVERS, INC.
For complete information write or call:
1539 Harbor Ave., Long Beach 13, Calif.
Long Beach HEmlock 7-3591
Los Angeles SPruce 5-2891

Business Trend

Our No. 1 advisor on business trends, Rex Hensel, the Shell purchasing manager, sends a copy of a monthly business survey, made by and for the members of the Purchasing Agents' Association. It shows a pretty healthy upswing locally in such items as production, new orders, employment, and the only fall-offs are in inventory and prices. The forecast is that these will be turning up any minute. Rex and the local experts appear to be quite happy about the whole situation and we personally have quit worrying, so why don't all you lesser informed people perk up and start enjoying life. Ever since Rex began keeping us posted on the economics of the West, we have been thinking seriously about putting out the Daily Snedderhorn Letter and weather report; for instance: during the first half of May you can look for an increase in temperature but there will still be ice in glasses, and as far as smog is concerned, there will be light irritation in the north and central parts of the eye.

Space Stuff

Dr. E. R. Van Driest of North American Aviation's Aero-Space Laboratories told the Long Beach Petroleum Forum of A.I.M.E., a short time ago, that the petroleum industry's well logging methods and instruments may be used on the moon within a few years. According to the good Doctor, a lunar landing vehicle could use well logging equipment to probe, extract and analyze the moon's crust. So with Bob Bauer and the Mohole Project poking downward and the lunar explorationists soaring into the ether, who knows, we may still find some relief for our traffic congestion. There would seem, as Dr. Van Driest suggests, to be more and more need "for cooperation and a free interflow of know-how among all technical and scientific fields" to advance space technology, and indeed, we might add, all species of technological exploration. And, by the way, if the oil industry ever should extend its sphere of influence to the moon, there are a couple of gin rummy players we'd like to see sent out on the first flight.

Sons of May First

Jim MacDonald, the explosive photographer, ex-Big Shot of the

Sons of May First

Nineteeners, ex-prexy of the Wilshire Country Club, and now Grand Wahoo of the Sons of May First, tells us that the latter will be foregathering at Mac Tec Elwood up Idyllwild way for the 43rd consecutive year, to open the fishing season and perhaps the odd bottle of port from April 28 to May 1, 1961. The current membership of this august accumulation of high brass includes such important petroleum people as Jim Barr, who has been delegated to "design and edit the food"; Bill Beck, the Socony purchasing mogul from New York; Bob Burns, the official shutter-snapper; Dewey Barber, Warner Parker, Dolph Greenwood and Bob Watkins, entertainment impressarios; Arch MacDonald, purveyor of the elevating aquas; Martin Newell, who will see that everybody gets there; Charlie Napier, the Tidewater purchasing chap; Jim Simpson, the chief air inspector; Oliver Spradling, who will waste hours keeping the minutes; Jack Spradling, who will keep his eye on Oliver; Ray Tecklenborg, procurer of chefs, cookees, etc.; Charlie Schnieder, representative of Cuernavaca; Jeb Terry, who will assist Arch in keeping the waters flowing; Les Wiggins, accumulator and guardian of funds, if any; and Roy Stewart, minister without portfolio. Guests this year are advised to bring towels, sheets, toothbrushes, aspirin, arnica, niblicks, bows and arrows, wampum, oxygen pills, ear plugs and elephants. Don't quite understand what the elephants are for, unless it is to carry the trunks. But anyway, it looks as if the Sons of May First are planning on an uprising of some sort, so we will just hope for the best.

OBITUARY

We regret to announce the recent passing of two well known petroleum executives: Clarence Froome, former superintendent of the Ventura-Santa Paula district for Union Oil Company of California. Clarence was widely known in the industry. For many years he was in charge of the mechanical equipment department at Santa Fe Springs and had been active in the A.P.I. Division of Production. He was one of the founders of Petroleum Production Pioneers and a Life Member of the organization. He was also a member of the Retired Oil Men's Club and was frequently in attendance at the monthly meetings of this group since his retirement a few years ago. He was in the U. S. Navy during the 2nd World War and was discharged as a full Commander. Alfred W. Mitchem, retired West Coast attorney for Seaboard Oil Company, died on April 13, 1961, at Acapulco. Al moved to Broomfield, Colorado, when the firm shifted its headquarters eight years ago. He was a past director of the Petroleum Club of Los Angeles, a member of the Jonathan Club and the California State Bar and Colorado Bar Associations. He was a wonderful person with an entertaining sense of humor and had a host of friends here in the Southwest. Our sympathy goes out to the families and relatives of these two fine gentlemen.

Petrolite Corp. Subsidiary Enters Computer Field

Internuclear Company, Clayton, Missouri, subsidiary of Petrolite Corporation, St. Louis, Missouri, has announced the formation of a Computer Application division and has named E. Edward Mason as manager.

The staff of the newly created division will direct its specialized skills to the application of electronic computing equipment for the petroleum, chemical, feed, fertilizer, and other industries. The division will also provide services where high-speed digital computers are used in the solution of scientific, engineering and business problems.

Prior to his joining Internuclear Company in 1956, Mason was engaged in instrumentation control and start-up of the large nuclear production reactors at the Atomic Energy Commission's Savannah River Plant in South Carolina. He has had a wide variety of assignments involving the application of electronic computers to the solution of scientific and engineering problems.

Dowell Issues Report On Fracture Conductivity

Many factors influence the success of fracturing treatments that are designed to increase production from oil and gas wells. Recently the oil industry is showing much interest in studies of the fractures themselves and the propping agents used to hold fractures open after treatment. The Dowell Research Laboratory is conducting experiments and compiling data on the subject.

Fracture conductivity is a measurement of the amount of fluid which can flow through a given fracture under a given set of conditions. In earlier tests, different amounts of sand were used to keep fractures open, but little attempt was made to correlate the results in these earlier operations.

Recently interest has centered around new techniques: the single-point entry technique designed to obtain a single, high-capacity fracture instead of multiple fractures and the use of monolayers, either full or partial, of propping agents in fractures as opposed to packing. In laboratory tests the advantages of using a partial monolayer or a sparse population of propping agents as compared to the conventional packing technique became apparent. Where crushing or embedment does not occur, monolayers of sand have been shown to yield greater fluid conductivities than packed fractures using the same size sand grains. When malleable propping materials —such as rounded walnut shells, aluminum pellets and plastic cylinders—were used, conductivities as high as 50 times greater were obtained.

Dowell's report on its tests describes the equipment used, the effect of the hardness of the formation on fracture conductivity, the effect of mechanical pumping, temperature and well fluids on propping agents and field applications of data, and contains graphs of the data from the various tests. Copies of this technical report may be obtained by writing Dowell Division of The Dow Chemical Company, P.O. Box 536, Tulsa, Okla.

Now . . . you're glad you called Halliburton

In cementing – fracturing – acidizing . . . regardless of the service your well needs, when you're ready to do the job that requires running a packer, you're *glad* you called Halliburton. Halliburton always gives top priority to the design, development and manufacture of its service tools and equipment.

This *built-in quality* is additional reason for the confident feeling you have when the Halliburton crew drives up to your lease. They bring experience of over *three million* service jobs with them.

Men, materials, experience . . . all working together make you glad you called HALLIBURTON.

RTTS PACKER...

Halliburton's Retrievable Test-Treat-Squeeze Packer is a good example of built-in quality. Since this multi-purpose tool is retrievable, valuable rig time can be saved with its use because *several* zones may be treated during one trip into the hole. Full opening design of the RTTS permits passage of perforating and other small tools. For added safety, the RTTS contains a built-in safety joint.

DM/DC SQUEEZE PACKER...

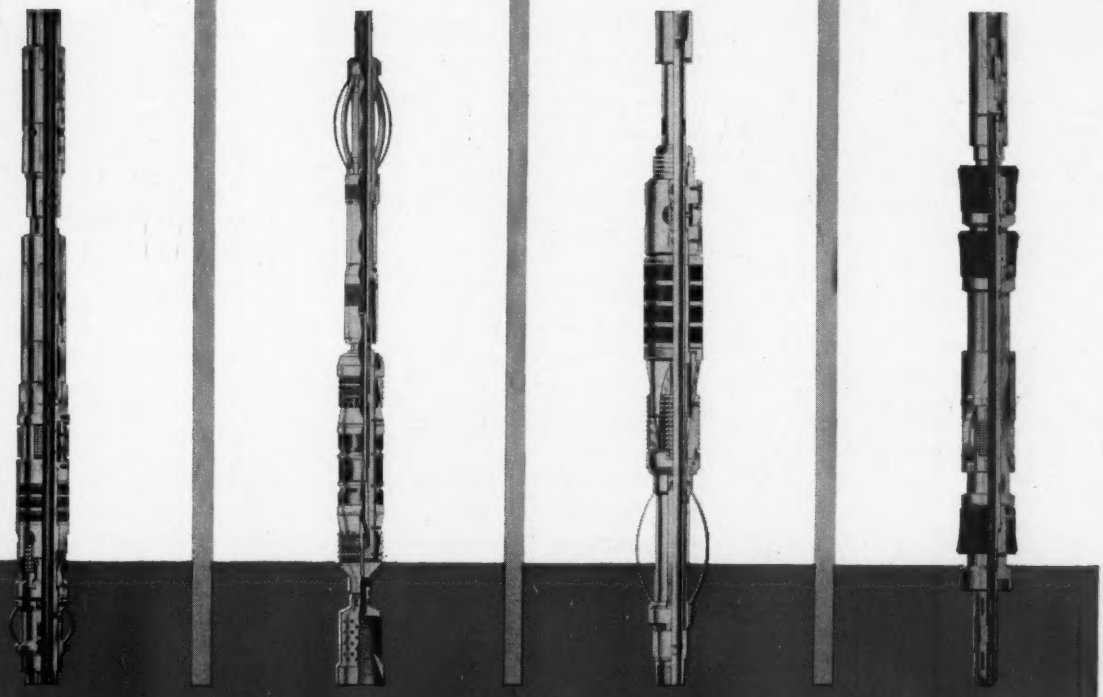
incorporates a built-in back pressure valve to help retain built-up pressures following a squeeze job. Safety in operation is another important feature since the tubing and circulating valve are completely freed from DM/DC packer prior to mixing cement or beginning other treating operations.

HM PACKER...

a full-opening hydraulic mechanical packer equipped with a built-in circulating valve. The HM Packer features simplicity of operation ... tool is set by merely turning tubing to the right and slacking off weight. Following the job, picking up on tubing will release the packer for removal or re-setting.

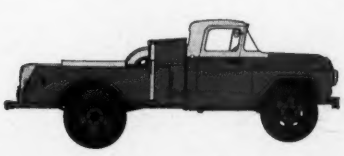
CUP TYPE RETRIEVABLE BRIDGE PLUG...

the versatile Halliburton tool designed to hold pressure from either direction. Used separately or in conjunction with the RTTS or other Halliburton Packers, the combination arrangement becomes a straddle packer with unrestricted spacing. Also, since the tool is retrievable, it may be moved with the packer to straddle and treat several zones without round-tripping the tubing.



Don't settle for less than the best! Call Halliburton *first*. Your Halliburton man can help you select the best combination of tools and techniques to get the best results for your service needs.

The right tool is a Halliburton tool ... every time!



SPECIAL TOOL SERVICES

Halliburton

COMPANY . DUNCAN, OKLAHOMA

CALIFORNIA DIVISION OFFICE: 1709 West 8th Street, Los Angeles 17, California

PPP Spring Barbecue May 13th at Kern County Golf Club

The Petroleum Production Pioneers' Spring Barbecue is scheduled for Saturday, May 13th, at the Kern County Golf Club Picnic Ground, Bakersfield.

President Doug Kingman, with some assists from board members at the February 27 meeting, was successful in cajoling and wheedling the "Pro" barbecue team to serve again this year. Floyd Vaughn on arrangements (also new treasurer) plans to be on the grounds two days in advance to get things rolling. Hugh Gribbin, new sergeant-at-arms, repeats as maitre d' of the libations committee, or as good Scotch friend Dick Snedderhorn would label him, "purveyor of the pure distilled dew o' the heather." Hugh hopes that his crew of eight will all show.

Ed Cleveland with his genial group of receptionists will welcome the guests as usual and the reliable Andy Anderson continues at the helm of the transportation committee. A bus will be available from Long Beach as an added convenience this year and will depart from the Petroleum Club, 3636 Linden Avenue, at 11:45 a.m. and will rendezvous with buses from Los Angeles to take on any overflow at the departure site, San Francisco Street, behind the Statler Hotel. Departure from Los Angeles is scheduled for 12:30 p.m. and will pick up members from the Ventura area at Tips Restaurant at the junction of the Santa Paula-Fillmore Road and Highway 99 at 1:30 p.m.

With director Sam Kelly stimulating attendance in the Bakersfield area, the veteran Al Bailey all set to rope them in from around Taft, and in mouth-watering anticipation of feasting on Howard Donley's delicious barbecued steaks, the stage is all set for a gala gathering of the "Black Gold" clan. However, what is needed now is the prompt return of ticket orders and checks received through the mail by members. Tickets can also be purchased through Sam Kelly at MKB Oil Tool Shop, 3525 Pierce Road, Bakersfield, or at his Valley warehouse, 30th and M Streets. Al Bailey, with Axelson at Taft, will also have a supply of tickets available. Lewis W. Ruggels, 185 N. Olive Street, Ventura, has tickets for sale.

Summarizing: The date is May 13; cost per ticket, $6.00; preliminary gathering about 3 p.m.; social and refreshment session, 3:30 to 5 p.m.; and Donley's barbecued steak dinner promptly at 5 p.m.

Douglas G. Kingman, President of Petroleum Production Pioneers, is receiving the assurance of his committee chairmen that everything is in readiness for the Annual Spring Barbecue to be held at the Kern County Golf Club Picnic Grounds, Bakersfield, Saturday, May 13, 1961. From left: D. G. Kingman, President; Hugh G. Gribbin, Chairman, Beverages Committee; Wm. "Andy" Anderson, Chairman, Transportation Committee; Floyd E. Vaughn, Chairman, Arrangements Committee.

Oil Producers Agency Elects New Officers

Richard R. Von Hagen was re-elected president of Oil Producers Agency of California at the April 12th annual meeting of the independent oil producers association's board of directors. Mr. Von Hagen is president of Lloyd Corporation, Limited.

Vice presidents re-elected were: H. D. Campbell, president of McElroy Ranch Company; John H. Matkin, vice president of Kern County Land Company; Lee S. Osborne, vice president of Union Pacific Railroad Company; and C. G. Williams, vice president of Universal Consolidated Oil Company.

Ross McCollum, president of National Oil Company, was re-elected secretary treasurer and T. D. Bonney, president of Mt. Diablo Company, was re-elected assistant secretary treasurer.

Stark Fox was re-elected executive vice president.

Directors re-elected are: T. D. Bonney, president of Mt. Diablo Co.; J. H. Gilliland, president of Gilliland Oil Company; E. B. Hall, president of E. B. Hall & Company; H. R. Hamilton, president of Huntington State Company; E. H. Jones, president of Terminal Oil Company; Lee S. Osborne, vice president of Union Pacific Railroad Company; E. E. Pyles, vice president of Monterey Division of Humble Oil & Refining Company; Jasper Tully, president of Reserve Oil and Gas Company; Clark N. Simm, general manager of Producing Properties, Inc. (West Coast Division); L. I. Weill, president of Jewett Oil Company; and C. G. Williams, vice president of Universal Consolidated Oil Company. Russell H. Green, Jr., of Signal Oil & Gas Company was a new member elected to the board.

Long Beach D & D Club Meeting

Wallace Linville, automotive engineer with the Los Angeles Air Pollution Control District, spoke on "The Smog Problem" at Desk and Derrick's dinner meeting on April 19th at Lakewood Country Club.

Linville has been with the APCD since 1954 and is presently in charge of the Automotive Testing Laboratory engaged in testing and evaluating automotive smog control devices.

At the conclusion of club business, announcement was made concerning the Regional meeting in Santa Barbara's Hotel Miramar, April 28, 29 and 30. Mildred Maroney in charge of reservations.

Door prize for this month's gathering was donated by Monterey Division of Humble Oil and Refining Company.

Geological Forum Meeting

Lateral faulting was the subject of the geological forum meeting of the Pacific Section, AAPG.

Richard F. Walters, Humble Oil and Refining, discussed "Theoretical and Practical Aspects of Lateral Faulting," and William J. M. Bazeley, Richfield Oil Corporation, discussed "175 Miles on the San Andreas Since Lower Miocene?"

The forum was held April 17 in the Mobil Auditorium, Mobil Oil Building, Los Angeles.

Petroleum Prod. Pioneers

PPP, founded at Los Angeles in 1944 and incorporated in 1947, has now increased its membership to 2,300. The organization, comprised of oil industry production, equipment and supply company personnel, is dedicated to an effective welfare program, the recording of significant events in the history of the California oil industry, the marking of historically important oil sites, suitable recognition of men who have made important contributions toward the progress of the oil industry and, through the scheduling of social events, providing a means of continued fellowship.

The Pioneers, after a most successful year under the guidance of Pick McIver, are off to a determined and enthusiastic start in 1961 with Doug Kingman at the helm. Three directors' meetings have been held to discuss immediate problems, such as necessary changes in the by-laws, plans for 1961 and ways to elaborate on the program of procuring museum items for the Science and Industry Building in Long Beach. A great many interesting and valuable items have been donated by members and friends, and it is urged that this be continued.

Speaking of Long Beach, the PPP group that meets there on the third Wednesday of each month is growing with each luncheon. All attendance records were broken in March when more than 120 old-timers gathered at the Long Beach Petroleum Club and at the conclusion of lunch heard a most interesting talk by Dr. Tirso del Junco (surgeon at Queen of the Angels Hospital, Los Angeles), who was a classmate of Fidel Castro at the University of Havana, studying medicine while Castro was busy as an embryonic lawyer. These luncheon meetings held on the third Wednesday of each month afford an excellent opportunity for frequent get-togethers.

The PPP board of directors passed a resolution at the March meeting which permits a person to become a "junior" member of the organization after five years in the oil business instead of ten. The purpose was to give recognition to the younger men who have done so much in the way of service to the industry.

In order to utilize the experience, knowledge and community stature of past presidents and past honorary presidents, the board of directors has unanimously voted the formation of a "Past Presidents' Advisory Council." This council will, in effect, act in a body as consultants in solving problems and, in general, lending active assistance for the good of the organization. E. "Pick" McIver was appointed chairman of this committee, which office will be automatic for immediate past presidents in succeeding years.

Inasmuch as a roster of PPP members has not been printed since 1958, plans are under way to have a 1961 version compiled at the earliest possible date.

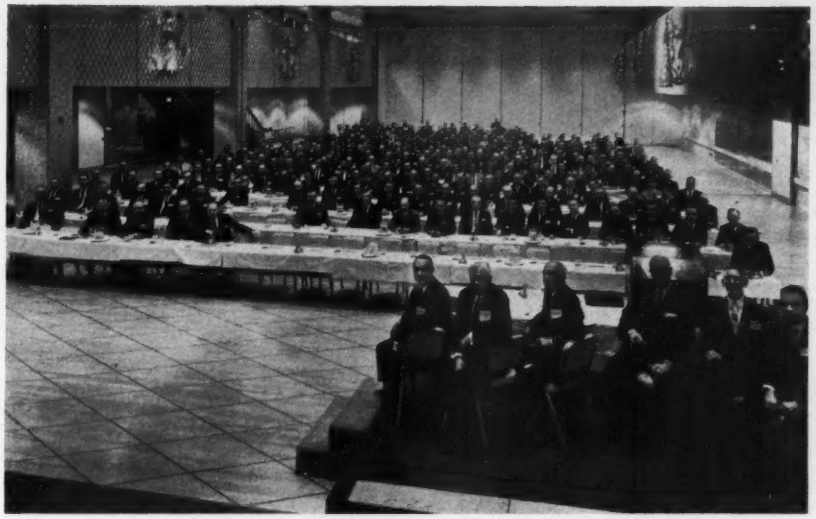
A public relations committee was established by the board and president Doug Kingman announced that Tom Ashe would head this group.

PPP officers for 1961 are as follows:

Honorary President, Sam Grinsfelder; Honorary Vice President, E. "Pick" McIver; President, Douglas G. Kingman; Vice President, Basil P. Kantzer; Treasurer, Floyd E. Vaughn; Historian, Paul Andrews; Assistant Historian, William Anderson; Sergeant-at-Arms, Hugh G. Gribbin; and Secretary, Elmer Olsen.

Directors: Thos. R. Ashe, Raymond Brown, Edwin C. Cleveland, Hugh G. Gribbin, Sam Grinsfelder, Rex C. Hensel, Basil P. Kantzer, Sam Kelly, Douglas G. Kingman, Watson W. Lupton, Theodore A. Miles, Glenn E. Pitts, Wm. D. Tetsch, Wm. M. Thornbury, J. E. Toussaint, and Floyd E. Vaughn.

Committee Chairmen: Floyd E. Vaughn, Arrangements; Hugh G. Gribbin, Beverages; K. N. Saatjian, Life Membership; C. J. McLaren, Memorial Fund; Wm. R. Wiley, Membership; E. "Pick" McIver, Nominations; Edwin C. Cleveland, Reception; William Anderson, Transportation; Thos. W. Selser, Welfare; and Tom Ashe, Public Relations.



Continental-Emsco 20th Annual Sales Meeting held in Dallas March 19-21.

Continental-Emsco Holds Annual Sales Meeting

Continental-Emsco Company held its 20th Annual Sales Meeting March 19, 20 and 21 at the Sheraton Dallas Hotel in Dallas.

Over 350 employees from the United States, Canada and England were in attendance. This year the meeting was held in conjunction with Continental-Emsco's affiliated manufacturers, whose products the company distributes throughout the oilfields of the world.

The affair was highlighted by tours of the company's general offices in Dallas on Sunday, the 19th, and its subsurface equipment plant in Garland on Tuesday, the 21st.

Kilsby-Tubesupply Announces New Stock Catalog

Kilsby-Tubesupply has announced a new issue of its stock catalog, containing latest specifications, and dimensional and engineering data on carbon steel, alloy, stainless, and aluminum tubing. Data on carbon steel pipe, stainless steel pipe, steel tubular shapes, and aluminum Holobar are also presented.

Copies may be obtained free by writing to the company at 2501 South Malt Avenue, Los Angeles 22, California.

Kilsby-Tubesupply maintains branches in Los Angeles, San Francisco, San Diego, Seattle and Portland, with sales agents throughout the United States.

President of Oil Producers Agency of California Reports to Board

An anomalous situation exists in the California industry at the time this Annual Report is being written.

With every statistical indicator supporting the reasonableness of a restoration of crude oil prices, particularly in the lower gravities, no such movement has occurred.

In my report of last year, I noted that crude and heavy fuel stocks had been substantially reduced, that one of the large purchasing companies had entered the market for heavy crudes, and that these two developments were a hopeful sign for the California producer. I also noted, however, that discount prices for some crudes were still a cause for concern.

During the year that has since passed, crude and fuel oil stocks have been further reduced, discount prices have virtually disappeared, the demand for residual fuel has been high enough to lead some of the larger companies to import it in bond, but the usual stimulus for increasing the supply, an increase in price, has not occurred.

In saying this, I do not overlook the 10-cent increase of last September. That increase still leaves posted prices in California at levels of from 35 to 80 cents per barrel below those of 1957. It was welcomed as a step in the right direction, but it can hardly be considered as completing the whole journey to reasonable and adequate prices for California crudes in the high-cost producing industry today.

During the year, the Agency prepared and distributed a number of analyses of industry conditions, all of which pointed to the necessity for a price structure that would recognize those conditions. The most recent of these, at the end of last year, noted that the increase in oil field wages then pending but now generally in effect would raise the labor cost per barrel of production by approximately 24% compared with 1957, while crude prices had been cut by from 10% to 31%.

In a published statement, I said in part:

"It is historically true that the California producer has responded to increased prices by increased drilling and development programs, with resultant increases in production. The cost-price squeeze of the past three years has retarded this effort. Now, when it appears that a further increase in costs is impending, and when the industry's statistical position demonstrates the need for additional California production, a concurrent adjustment of crude prices is imperative.

"These adjustments, if as much as 35 cents per barrel for the lighter crudes and 80 cents per barrel for the heavier crudes, would merely restore California crude prices to 1957 levels. Even then, the California producer's economic health would not be as good as it was in 1957 because of increases in all costs, including wages, that have occurred in the meantime."

These facts are still true.

A further upward adjustment in California crude prices is overdue.

Import Program

In fairness to those responsible, I believe it should be said that administration of the oil import program has consistently improved during the years since the beginning of 1958, when it was put into effect in District V.

The semi-annual quotas have more nearly approached the maximum level that would make up the difference between domestic supply and total demand, which is the principle upon which the District V program is founded.

Possible leakages have been dealt with. First, exempt Canadian imports were taken into account, and second, inter-district shipments in excessive volumes are no longer included in calculations of total District demand.

The latter change, made effective in the first half 1961 quota period, followed a Washington hearing late last year, at which the Agency urged that such action be taken. In our opinion, it strengthens the program.

Import Hearing

There will be formal hearings on the import program in the near future, according to the new Secretary of the Interior, Stewart Udall. One of these hearings will be in Washington, and one, concerning District V, on the West Coast.

The exact nature of these hearings is not yet known, but the Agency will be prepared to represent the California producer at the District V hearing as it has consistently done since the inception of the program.

Natural Gas

As you know, the Agency participated in Federal Power Commission and Public Utilities Commission proceedings in the so-called Rock Springs case.

During the year, both commissions approved the project, but the PUC attached certain conditions to its approval. These conditions were of such a nature as to cause the FPC to re-open its hearings, with the result that the project's completion will have been delayed for many months.

Part of the case of those who opposed the utilities in this matter, including the Agency, was that it brought too much gas into California too soon. Thus, even though the project was approved, the delay caused by the imposition of conditions has in part accomplished one of the results sought. Other conditions go far toward removing our other objections.

Meanwhile, the rapid and extensive development of dry gas fields in Northern California has added a new element of concern for the independent producer. He knows that the public utility companies continue to seek out-of-state gas supplies; he knows that these supplies will be used to the fullest extent possible, and he wonders whether that doesn't mean that he will be denied a fair share of the market.

The Agency, in conjunction and cooperation with producers of dry gas in California, intends to look into this matter. As it has done in the case of the oil producer, it will do its best to further the interests of the California dry gas producer in the firm belief that in doing so it is also serving the interest of the people of the state and the nation.

Respectfully submitted, Richard R. Von Hagen.

SMITH-EMERY CO.
Chemists—Engineers
Established 1910
Metals—Oils—Waters
Analyzed and Tested
Shipments Certified
781 E. Washington Blvd.
Los Angeles 21, Calif.
Member
American Council of Independent Laboratories

Kennedy Asks for Natural Gas Bill to Exempt 3800 Small Producers and Expand F.P.C.

President Kennedy recently called on Congress to help break what he called "an incredible backlog" of 4,000 natural gas producer rate cases by enacting legislation to expand the membership of the Federal Power Commission and exempt some 3,800 small producers from federal regulation. He also urged other steps "to prevent undue increases" in prices paid by consumers, reports Frank Rogers, WOGA's Washington, D.C., representative.

The idea of limiting federal regulation to the larger producers is not a new one, and whether it will succeed under the impetus of the President's endorsement is a matter of conjecture among observers here. When Senator Paul Douglas offered the plan as an amendment to the Harris-Fulbright bill in 1956, it was defeated in the Senate by a vote of 35 yeas and 58 nays after senators from gas-producing states branded it as discriminatory, unconstitutional and unworkable. Kennedy, then a member of the Senate, voted for the Douglas plan.

The President, in a special message to Congress, said the action would limit federal control to some 270 producers who sell approximately 90 per cent of the gas moving into interstate commerce. James Landis, his special advisor on regulatory agencies, told newsmen he believes the FPC already has sufficient authority to exempt the small producers but that the legislation should be passed anyway. Three bills are pending in the House to carry out the President's recommendations. They have been referred to the House Interstate and Foreign Commerce Committee, which also has a number of other natural gas bills before it.

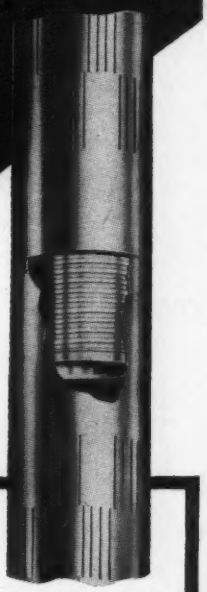
Most observers feel it is doubtful that Chairman Oren Harris of that committee would proceed with the small producer bill without also considering his own bill, which is designed to formulate regulatory procedures for all independent producers. This, in turn, it is believed, would open the way for consideration of another measure which is backed by public utility commissions in more than 20 states.

Chairman Harris also has introduced a bill to expand the FPC from five members to seven, as recommended by President Kennedy, and to make the chairman's tenure subject to the will of the President. Kennedy also asked for a revamping of the Federal Power Act so that the Commission could be divided into three-man panels with authority to decide cases. This, he said, would speed up the FPC's work.

Further support for the small producer exemption came from Howard Morgan, a Kennedy nominee for the FPC. Morgan, however, told the Senate Commerce Committee that he recognized it would be difficult for the FPC to regulate any independent producer on a utility basis and said he did not know enough about the problem to recommend a solution. Joseph C. Swidler, another Kennedy nominee for the FPC, appeared only briefly before the committee and did not disclose his philosophy on natural gas regulation before the hearing was recessed.

Sandy says . . . USE Pacific's ONE-STOP SERVICE

Pipe Slotting and Threading



In pumping and flowing wells, sand can and does ruin equipment, stop production, and boost costs. Pacific Slotted Pipe is a precision product that prevents sand from gumming up your production. Pipe up to 13⅜" O.D. can be slotted by the Pacific Process. Pacific Engineers will recommend the exact size, type and pattern slot that you need. Sandy says . . . Don't trust expensive equipment to the ravages of sand. Call Pacific today.

Pacific Slotted Pipe Means That You Are Well Protected!

Pacific offers you a fast, accurate, "one-stop" slotting and threading service to your specifications . . . with Ventura Tool Flush Point, API "Round" and "V" Threads.

Pacific Perforating Company

Main Office and Plant
Torrance, California
FAirfax 8-6787
SPruce 5-3269

BRANCHES:

Bakersfield ..... FAirview 2-4390
Ventura ..... Miller 3-5959
Taft ..... Roger 5-4426
Coalinga ..... Wells 5-2262

T. M. Chubb Joins Richfield Oil Corporation

Appointment of **T. M. Chubb** as manager of natural gas transportation and sales is announced by Richfield Oil Corporation.

A veteran of 35 years in administration, management and operations with organizations in the fuel and natural gas field, Chubb was director of the Pacific Southwest Division of H. Zinder & Associates, a national firm of engineering consultants, before joining Richfield.

Previously he had been chief engineer and general manager of the Department of Public Utilities and Transportation of the City of Los Angeles, chief gas engineer and assistant secretary of Pacific Lighting Corporation, Western Area chief of the Natural Gas Division of the War Production Board, senior engineer for the California Public Utilities Commission, and special representative for Pacific Gas & Electric Company.

He is a registered Professional Engineer in the branches of electrical engineering and petroleum engineering, as well as a public accountant and a member of various professional and technical associations.

API Announces New Publications

The American Petroleum Institute's Division of Production announces the availability of four new publications.

"Well Testing" is a 48-page illustrated handbook designed for operating personnel. It may be ordered at a cost of $2.50 ($3.00 foreign) a copy.

"Model Form of Unit Agreement (Second Edition, 1961)" and "Model Form of Unit Operating Agreement (Second Edition, 1961)" are companion publications. Cost is 75 cents a copy.

"Standard Procedure for Presenting Performance Data on Hydraulic Fracturing Equipment (API RP 41)" provides a standard for measuring, reporting and certifying the hydraulic-horsepower rating of pumping units in fracturing service. The price is 50 cents a copy.

Copies may be ordered from the Division of Production, American Petroleum Institute, 300 Corrigan Tower Building, Dallas 1, Texas.

Continental-Emsco Names New Export Sales Manager

Continental-Emsco Company, Dallas, Texas, has announced the appointment of **W. N. Plamondon, Jr.,** to the newly created position of export sales manager, according to **W. G. Sharp,** manager, export division. He will headquarter in the company's export division office in New York City.

Plamondon, formerly division drilling equipment sales engineer, began his employment with Continental-Emsco in 1956 as a sales engineer in the New York office.

His duties will include the responsibility of coordinating all export policies with particular emphasis to assisting the firm's agents and representatives in various countries around the world.

Replacing Plamondon as division drilling equipment sales engineer is **Robert V. Atkinson,** formerly sales and service representative for Continental-Emsco's export division in Houston. He will also office in New York.

R. L. Adams Promoted By Continental Oil Co.

R. L. Adams, Houston, has been promoted to general manager of Continental Oil Company's western region, with headquarters at Los Angeles, Calif., it was announced by L. F. McCollum, president.

Formerly production manager for Conoco's CATC marine region, he succeeds **J. P. Malott,** who recently was transferred to Houston and elected a company vice president and general manager of production.

It was announced at the same time that **F. T. O'Leary,** Houston, has been promoted from regional superintendent of natural gasoline and gas operations to production manager for the CATC marine region, succeeding Mr. Adams.

Mr. Adams joined Conoco in New Mexico in 1946 and served in key production positions in New Mexico, West and North Texas, and Oklahoma before his promotion to division superintendent at Roswell, N.M., in 1955. Production manager of the CATC marine region since 1959, he is a native of Athens, Texas, and received his bachelor's degree in petroleum engineering in 1941 from Texas Agricultural and Mechanical College.

"Cold-Pack" is New Production Stimulation

Sievers, Inc., has just announced "Cold-Pack," a new technique using chilled or cold stimulation fluids, cooled by additions of liquid carbon dioxide, which, when pumped into the producing zone and triggered by thermal processes, converts the "Cold-Pack" into a powerful gas-fluid phase, forcing the designed fluids into the producing area to accomplish their desired result.

The new process opens up new and useful ways and means of stimulating oil production and removing most completion fluid damage. Liquid carbon dioxide is applied to the production zone combined with special formulas of aromatic solvents, wetting agents and sometimes certain acids, deliberately temperature controlled to keep gas and fluid dispersion from occurring until the designed treatment is in place.

Besides its gas expansion abilities liquid CO-2 has definite chemical characteristics desirable for bottomhole conditions. It reduces surface tension, converts insoluble carbonates into soluble bicarbonates and increases the ability of the bearing formation to give up oil, a function of decreased viscosity and increased volume.

Practically all previous stimulation procedures besides the simple hot oil, down-the-annulus dump jobs, according to Sievers, require surface hydraulic forces to "put away" the stimulation products. These forces, he says, are often seriously dissipated by tubing friction losses, etc., minimizing the true volume and/or fracing forces required in the producing zone to place the stimulation products where they are needed. The combined thermal and liquid carbon dioxide "Cold-Pack" treatments are not restricted by thermal losses or pressure decreases during application because the driving force occurs after the materials are in place and heat is generated in place.

Inquiries should be directed to Sievers, Inc., 1539 Harbor Avenue, Long Beach 13, California. Reports on "Cold-Pack" treatment by Dr. Richard L. Perrine will be forwarded by Sievers upon request.

Universal Oil Products Reports Net income of $3,548,485

Universal Oil Products Company had a net income of $3,548,485 or $1.23 per share of common stock in 1960, shareholders were told in the Annual Report mailed March 17. In 1959, from February 12 when UOP became a publicly owned company, net income was $3,243,202, equal to $1.12 per share.

Gross revenues last year totaled $72,516,716, compared with $65,359,306 for the partial year in 1959. Cash flow in 1960 amounted to $9,494,269 or $3.28 per share; in 1959 it was $8,082,282 or $2.79 per share.

In a letter to shareholders, David W. Harris, chairman, and M. P. Venema, president, termed 1960 "a successful year that showed progress in many areas of operation," and reported that "process licensing reached a new peak during 1960 and product sales increased over the previous year."

Mr. Harris relinquished the office of chairman and chief executive officer on January 1, 1961. He is now chairman of the finance committee and special adviser to Mr. Venema, who became chairman of the board and retained the office of president of Universal.

The letter emphasized Universal's awareness of the need for developing new sources of future earnings. It stated that to that end the company had taken the following action in 1960:

1. Made appropriations for new manufacturing plants and equipment.
2. Formed a subsidiary, Universal Oxidation Processes, Inc., to direct manufacturing and marketing of Purzaust, a catalytic muffler.
3. Acquired control of The Trubek Laboratories, and
4. Purchased the Catalytic Combustion Corporation.

The report noted two especially important trends in licensing activity. One was that half the 1960 licensing sales volume came from new foreign license agreements, compared with less than 10 per cent from this source only a few years ago. The second was the increased interest in petrochemical processes, particularly in the United States.

A new process, Hydrar, which makes cyclohexane from benzene, was first put into operation in 1960. Cyclohexane is a chemical important in making nylon. The first license for UOP's new Lomax process, which is expected to become one of the standard refinery processes, was signed during 1960. Lomax processes heavy oils to give the refiner greater flexibility in adjusting the volume of gasoline and distillate fuels to correspond to his market.

Commenting that processes licensed and products sold in 1960 resulted from research and development of previous years, Universal reported that approximately $7,500,000 was invested in these activities during the year. This is eight per cent more than the company spent on research and development programs the previous year.

Gasoline Additive Prevents Carburetor Fouling, UOP Tests Show

A gasoline additive already used by refiners and marketers to protect processing and transportation equipment from corrosion also prevents fouling of carburetor throats, recent Universal Oil Products Company tests show.

UOP engineers disclosed that road tests demonstrated that the additive, Unicor-LHS, removes carburetor deposits better than earlier products formulated especially for that purpose. To accelerate the fouling rate, crankcase breather fumes were piped directly into the carburetor, bypassing the air filter.

Carburetor fouling is a major cause of rough idling in high compression engines, UOP engineers point out. Exhaust fumes from other cars are drawn into the carburetor while driving in heavy traffic. The fumes contain combustion products that form a varnish where throttle plate meets carburetor wall. Rough idling results from interference with plate operation and from clogging of idle air passages.

Use of the UOP additive is an inexpensive way to stop fouling, according to the company's engineers. The additive is added during refining to protect process equipment from corrosion and remains in the gasoline to prevent rusting of transportation equipment and automobile fuel tanks. In addition to its detergent properties that keep carburetors clean, the UOP additive is an effective anti-icer and ignition improver, the engineers said.

Johnston Stainless Welding Rods

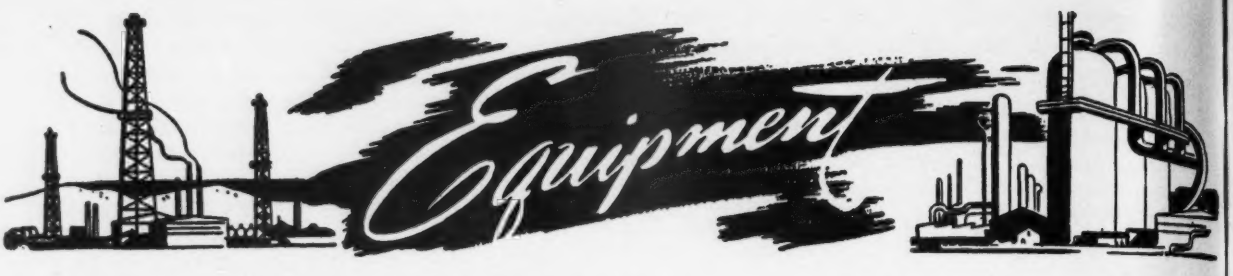
PROVEN QUALITY SINCE 1931

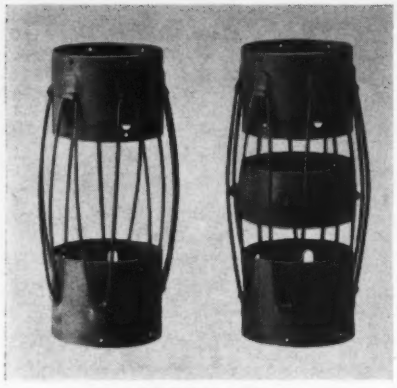
•

JOHNSTON STAINLESS WELDING RODS INC.

1845 E. 57th St. - Los Angeles 58, Calif.

LUdlow 8-2508





New B&W Hyflow Guide

New Hyflow Guide For Primary Cementing

B & W Incorporated announces the development of a new Hyflow Guide, which is a rod spring type centralizer specifically designed to provide full fluid circulation. Both end collars are flash welded and made without a restrictive bead. This design allows a full 360° fluid course over the outside perimeter of the unit.

The rod bows are made from one continuous rod with no ends to pull free. According to the manufacturer, this prevents hazardous loose junk in the hole and insures a more effective tool when it gets to bottom.

High tensile strength steel has been used in making the rod bows to insure centering of the casing for an even distribution and a complete cement fill. The unit also assists in removing excess hole growth and affords protection to the scratchers.

The Hyflow Guide is available either with the B & W Full Circulation Automatic Stop Collar inside or without it to meet individual installation requirements. It may also be ordered with the B & W Friction Lock Clamp inside.

For further information on this new Hyflow Guide, write for Product Bulletin No. 105, B & W Incorporated, 19706 South Normandie Avenue, Torrance, California.

Union Oil Develops Automatic Products Blending

Electronic blending of gasoline, jet fuels and other petroleum products with "essentially absolute accuracy" began recently when a revolutionary $1,500,000 unit went into operation at Union Oil Company's Los Angeles refinery.

First of its kind, the new electronic blender uses more than 5,000 transistors in its computer-controller system.

Union's engineers have been working for two years on the design and construction of the blender. The company has patents pending on the unique control principle.

The unit, operating from a central point, automatically controls valves on storage tanks a mile away.

A companion unit, which can be operated simultaneously, blends turbine and diesel fuels at rates up to 3,500 barrels an hour.

Dragon Adds New 6,000 psi Soft Seat Needle Valve to Line

Dragon Engineering Company, West Coast needle valve manufacturer, has broadened its line of panel mounted needle valves by the addition of a smaller and more compact soft seat valve for pneumatic and metering services.

The valve assures absolute bubble tight sealing against all gases, including oxygen, nitrogen and helium, at pressures to 6,000 psi. It is available in 303 stainless steel, 316 stainless steel, aluminum alloy, and other materials.

One of the outstanding features of this new soft seat needle valve is that the bonnet and stem are protected from foreign particles.

This new valve can be easily installed on panels, as only the valve handle and lock-nut need to be removed. The valve can be repaired without removing it from the line.

The new soft seat needle valve is available with ⅛", ¼" and ⅜" pipe thread; also with AND 10050-4 and 10050-6 tube porting. Other port connections are available upon request.

Halliburton Introduces Pneumatic Railway Car

A pneumatically operated tank railroad car for hauling and transferring powdered, granular and most pelletized dry materials is being introduced by Halliburton Company of Duncan, Oklahoma.

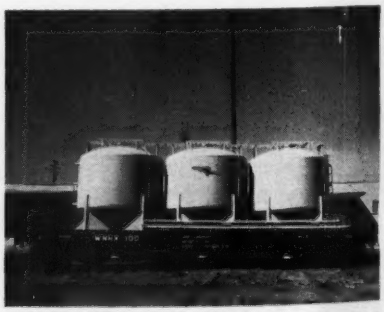
The 2400-cubic-foot-capacity car mounts three teardrop tanks on a specially built railway car having 152,000 pounds payload. Each tank holds 800 cubic feet.

The car is the first of its kind to be operated in the United States. Halliburton said the car was engineered by its bulk materials handling department, which has over 35 years experience in handling dry materials.

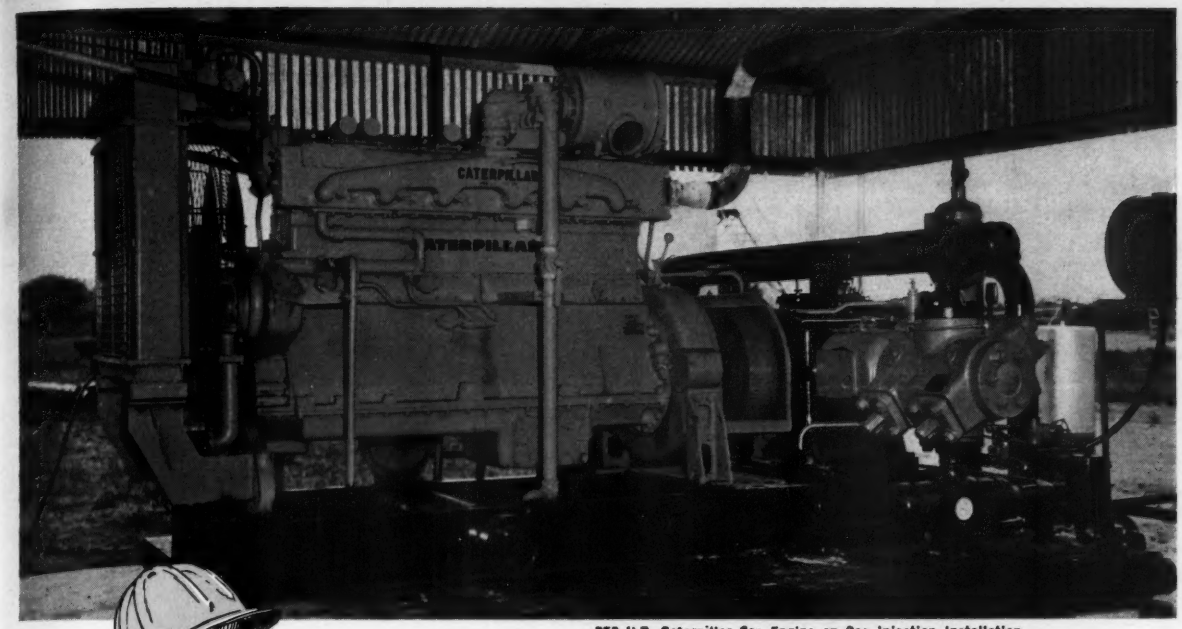
One man can unload the car in 30 minutes directly into storage bins without interfering with plant operations. The car unloads materials anywhere a pipe or hose can be routed.

With Halliburton's unique aeration system, the tanks are self-cleaning as each load is moved. This substantially cuts material waste and contamination.

For further information, write Special Products Division, Halliburton Company, Duncan, Oklahoma.



This pneumatic railroad car has a payload of 152,000 pounds and can be unloaded directly to storage by one man in 30 minutes. It is being introduced by the Special Products Division of Halliburton Company, Duncan, Okla.



250 H.P. Caterpillar Gas Engine on Gas Injection Installation.

COMPARE THESE Operating Costs

*"**SECO** leased gas engines opened our eyes to new operating economies!"*

There's a whole new trend in oil field operation that's cutting power costs 40 to 50%! How? Lease heavy-duty, long-run "CAT"® gas engines from SECO. Here's where you save:

- **NO CAPITAL INVESTMENT**—You avoid expenditure of capital ...release dollars for other uses. Your leasing cost is an operating expense item.
- **CUT POWER COSTS**—"CAT"® engines cut your power costs 50%. You use the fuel under your feet or from any gas distribution system.
- **ELIMINATE MAINTENANCE PROBLEMS**—SECO not only installs the engines but maintains them. You need *no maintenance crews, avoid labor problems.*
- **VERSATILITY**—Now widely used for Drilling, Pumping, Water Pumping and Flood Control, Gas Injection and Compression, Pipe Line Pumping, Irrigation, Field Generators, Cotton Gins, etc.
- **FAST SERVICE**—SECO provides trained maintenance men close to you for regular checkup and fast service.
- **OTHER ADVANTAGES**—Besides unusual operating economy "CAT"® engines provide variable speed power, reserve power for emergencies, complete dependability.
- **LEASE OR OUTRIGHT PURCHASE**—All "CAT"® engine sizes from 150 to 500 H.P. are available from SECO either on lease or purchase. SECO also supplies M-M gas engines from 10 to 100 H.P. continuous. Get our Data File showing economies of both methods!

YEARLY COSTS

ELECTRIC MOTORS, SECO-LEASED & SECO-MAINTAINED GAS ENGINES
FUEL GAS @ 30¢/MCF & ELECTRICITY @ 1¢/KWH

Cont. HP Load	HP Hrs. Per Year	*Electric Power Bill Only @ 1¢/KWH plus Electrical Investment	**Seco Leased Gas Engine Gas @ 30¢/MCF† No Investment	Company-Owned Seco-Maintained Gas Engine Gas @ 30¢/MCF† Plus Engine Investment
15	131,400	$ 1,314	$ 1,090	$ 840
20	175,200	1,752	1,280	1,030
30	262,800	2,628	1,790	1,390
40	350,400	3,504	2,240	1,610
50	438,000	4,380	2,540	1,890
100	876,000	8,760	4,650	3,240
200	1,752,000	17,520	9,300	6,500
300	2,628,000	26,280	13,900	9,450
400	3,504,000	35,040	17,500	12,600
500	4,380,000	43,800	21,000	15,800

*Allowing for line, transformer and motor loss, 1 KWH at meter will develop 1 HP Hr. at driven equipment.

**SECO Lease covers engine, sheave, scrubber and lube tank delivered and installed.

†Gas Cost is shown at lease sale price. You actually save this "out-of-pocket" fuel expense when using your own production.

SHRIMPTON MANUFACTURING & SUPPLY CO., INC.—*Sales & Service*

SECO SERVICE COMPANY, INC.—*Leasing*

5400 Jillson St., Los Angeles 22 • RAymond 3-6549 • VENTURA • BAKERSFIELD • ODESSA, TEXAS

Field Development

LOS ANGELES BASIN

Riverside County Wildcat

Edgington Oil Refineries, Inc., of Long Beach, is drilling on Thomas No. 1, a Riverside County wildcat test. Location of the well falls on the southwest quarter of Section 28-3s-7w three miles south of the Prado Dam production.

Beverly Hills Lease Sold

Beverly Hills Oil Company, c/o W. S. Payne, Jr., of Long Beach, has acquired the Beverly Hills High School lease from Allen Guiberson and plans new development. The property, at the intersection of Olympic Blvd. and Spaulding Drive, consists of 16 acres and two producing wells.

Mahala Area Wildcat

Julian S. Gould has staked location for T.B.G. No. 1 on the southeast quarter of Section 7-3s-7w in Riverside County. The test falls about 4000 feet east of the Chino-Mahala Field.

Deeper Pool Discovery

Gulf Oil Corp. of Calif. completed Y.L.U.M. No. 2 as a deeper pool discovery pumping 100 b/d of 16.2 gravity oil cutting 8 per cent from the perforated intervals 2900-2915, 2920-2935 feet and 3053-3070 feet. Located on Section 21-3s-9w near the intersection of Valley View and El Cajon Avenue in Orange County, the well was deepened from its first completion depth of 2395 feet to its present depth of 3400 feet. Gulf has several wells in the immediate area and has applied for permits to deepen several of them.

Belmont Offshore

Humble Oil & Refining Co. is ready to drill Monterey-Texaco-State No. 120 located offshore from Belmont on projected Section 22-5s-12w.

Soledad Basin Wildcat Abandoned

Coast Exploration Company drilled to a total depth of 4488 feet on Golden Triangle No. 1 and after running logs plugged and abandoned the well. The test was located on the northwest quarter of Section 24-4n-16w, seven miles northeast of Castaic Hills production.

Burbank

Barnes Core Drilling Company has drilled and abandoned Burbank No. 1 located near the intersection of Magnolia and Pass on Section 16-1n-14w. Total depth figures have not been released.

Rosecrans Well to Deepen

W. S. Payne, Jr., is preparing to redrill and deepen Murdock No. 2 in the Rosecrans Field, located near the intersection of San Pedro and Compton Blvd. on Section 20-3s-13w. The well was originally completed in 1952 by Carlton Beal at a total depth of 8103 feet plugged to 6495 feet. Payne plans to redrill from 6526 feet and deepen to about 8700 feet.

SAN JOAQUIN VALLEY

South Gosford Offset Completion

Universal Consolidated Oil Co. completed KCY-Coulter No. 25-25, located on the southwest quarter of Section 25-30s-26e, flowing 505 b/d net oil from both the Upper and Lower Zones. Flow from the Upper Zone, perforated at five intervals between 9740-10,010 feet, was 206 b/d of 32.4 gravity oil cutting 0.1 per cent through a 14/64" bean with 420 psi flow pressure. From the Lower Zone, perforated at three spots within 10,059-10,205 feet, flow was 299 b/d of 29.3 gravity oil cutting 0.1 per cent through a 14/64" bean with 560 psi flow pressure. A total of 169 feet of formation is open to production. The completion, a southwest offset to its new pool discovery, was drilled to a total depth of 10,277 feet and cemented 7" casing at 10,276 feet.

Round Mountain Outpost

Wm. M. Taylor, Operator, is preparing to move in rotary to drill Olcese-Taylor No. 2 on the southwest quarter of Section 17-28s-29e. The well is an easterly outpost to production and will test the Jewett and Vedder Sands.

Texaco Abandonment

Texaco Inc. drilled to a total depth of 12,700 feet on KCL-Paloma No. 1 and after running logs plugged and abandoned the test. The well was located on the southeast quarter of Section 6-32s-26e in Kern County, on the westerly flank of the Paloma Field.

Humble Oil Wildcat

Humble Oil & Refining Company has staked a location for Earl M. Newson et al No. 1 on the southwest quarter of Section 20-26s-18e in Kern County. The location falls about five miles west of Blackwells Corner production.

Helm Outpost Completion

Nordon Corporation, Ltd., completed Noble No. 5-9, an outpost test to the Helm Field, flowing 200 b/d of 35 gravity oil with a cut of 0.4 per cent. Flow was from the interval 6850-6860 feet through a 10/64" bean. Located on the southwest quarter of Section 9-17s-18e in Fresno County, the completion was drilled to a total depth of 6951 feet and cemented 5½" casing at 6949 feet.

Tulare Lake Wildcat

Shell Oil Company is ready to move in rotary to drill Shell Unit No. 36-16 located on the southwest quarter of Section 16-21s-19e in Kings County. The test is about 8 miles northeasterly from North Dome production at the Kettleman Hills Field.

Mountain View Outpost

Kenneth H. Hunter, Jr., Ltd., is grading rig site for Hunter-Brite No. 67X-16, a northwesterly offset to production. Located on the northeast quarter of Section 16-31s-29e, the well will go to about 8500 feet

Belgian Anticline Development

Shell Oil Company has surveyed in locations for six field development wells. One well, A.M.L. No. 26-16, will be drilled on the southwest quarter of Section 16-30s-21e, and A.M.L. Nos. 45, 46, 53, 77 and 86 are located on Section 17-30s-21e.

Superior Outpost Completed

The Superior Oil Co. completed Intex-Styskal No. 2, an outpost test to the Shale Point gas field, flowing 1200 mcf of gas per day through a 24/64" bean. Production is from the Mabury Sand perforations 3262-3267 feet. Located on the northwest quarter of Section 6-27s-19e, ½ mile southeast of present production, the well was drilled to a total depth of 3536 feet and plugged back to 3500 feet. 4½" casing is cemented at 3536 feet.

Cuyama Valley Wildcat

George Willett is drilling below 2000 feet on Plaugher No. 2 located on the southwest quarter of Section 18-10n-27w in Santa Barbara County. The wildcat is located two miles south of the Russell Ranch Field.

Buena Vista Nose Wildcat

Ferguson and Bosworth are drilling below 5000 feet on Shell Fee No. 1, located on the northeast quarter of Section 30-32s-26e five miles south of the Buena Vista Gas area. Objective of the 13,500-foot test is the possibility of a pinch-out Stevens Sand on the Buena Vista Nose.

Reserve Oil Wildcat

Reserve Oil & Gas Company is drilling below 3000 feet on Davis No. 1 located on the northwest quarter of Section 35-25s-25e and ten miles southeast of the Trico Gas Field.

West Bellevue Outpost

H. F. Dangberg, Operator, is ready to spud Easton No. 63-33, an outpost test of the West Bellevue area, located on the northeast quarter of Section 33-29s-26e. The well is an easterly offset to a Signal Oil & Gas Company producer.

Arrowhead Exploration Co. Outpost

Arrowhead Exploration Company is grading roads and rig site for KCL No. 45-17 to be drilled on the southwest quarter of Section 17-30s-26e. The test is a southeast offset to Shell Oil Co.'s KCL No. 34-17 completed as a new pool discovery in 1956.

New Pool Discovery

Richard S. Rheem, Operator, completed Norris-KCL-A No. 11X-34 as a new pool discovery flowing 170 b/d of 31.2 gravity oil cutting 0.5 per cent through a 14/64" bean from the Upper portion of the Middle Stevens Sand, perforated at three spots within the interval 9018-9085 feet. Located on the northwest quarter of Section 34-30s-26e, the well was drilled to a depth of 10,650 feet and cemented 5½" casing at 10,470 feet.

NORTHERN CALIFORNIA

New Gas Field Discovery

Sunray Mid-Continent Oil Co. completed Sunray-McCulloch-T. E. Heidrick No. 1 as a new gas field discovery flowing in excess of 3500 mcf of gas through a 5/16" bean with 1000 psi plus flow pressure. Flow is from the perforated intervals 3568-3580, 3655-3670 and 3687-3712 feet. Located on the northwest quarter of Section 18-20n-2w in Glenn County, the well was drilled to a total depth of 3900 feet and cemented 5½" casing at 3770 feet. Nearest production to the discovery is at the Beehive Ben-Willows Gas Field, ¾ mile to the southeast.

Rio Vista Completion

Brazos Oil and Gas Co. completed Langhart-Spreckels No. 6 flowing 1300 mcf of gas through a 13/64" bean from the perforated intervals 3718-3728 and 3765-3767 feet. Flow pressure was 1300 psi and shut-in pressure 1515 psi. Located on the southeast quarter of Section 23-4n-3e in Sacramento County, the well was drilled to a total depth of 3944 feet and cemented 4½" casing at 3944 feet.

San Joaquin County Wildcat

John M. Young is preparing to move in rotary to drill a wildcat gas test on the northeast quarter of Section 29-3s-6e. The test is located 1½ miles southwest of gas production at the Vernalis Field.

Universal Outpost

Universal Consolidated Oil Co. is drilling below 1000 feet on Rheem-Mayfair Farms No. 2 location on the southeast quarter of Section 6-17n-1w in Colusa County. Universal's test is a southwest offset to its Rheem-Hammer No. 1, the discovery well of the Catfish Bend Gas Field, completed from the Wild Goose Sand interval 2315-2328 feet flowing 3087 mcf of gas through a 24/64" bean.

Reserve Oil & Gas Test

Reserve Oil & Gas Company is grading roads and rig site for Liberty Farms-Reynolds No. 4 to be drilled on the southeast quarter of Section 30-5n-3e in Solano County. The test is a southerly offset to present production at the Liberty Island Gas Field.

Yolo County Wildcat

Universal Consolidated Oil Co. is ready to spud Rheem-Fahn No. 1 located on the southeast quarter of Section 29-6n-3e. The wildcat test is a joint venture with Richard S. Rheem and is about three miles north of production at the Liberty Cut Gas Field.

Atlantic Gas Tests

Atlantic Oil Company has staked locations for two wildcat gas tests in the Grimes area of Sutter County. N. L. & F. No. 2 will be drilled on the southeast quarter of Section 10-14n-1e and Epperson No. 1 located on the southeast quarter of Section 19-15n-2e.

Kadane & Sons Wildcat

G. E. Kadane & Sons are preparing to spud Lamb No. 1 located on the southwest quarter of Section 30-14n-2e in Sutter County. This wildcat gas test is in the Sheffield area, five miles northeast of the Gulf Oil Corp.'s recently discovered Kirk Gas Field.

Grimes Area Outpost

Cameron Oil Company is grading roads for Grimes Operating Unit 12 No. 2 to be drilled on the northwest quarter of Section 12-14n-1w in Colusa County. The test is about 2½ miles east of the West Grimes Gas area.

Reserve Wildcat Test

Reserve Oil & Gas Company is moving in rotary to drill Webb Tract No. 1 located on the northwest quarter of Section 36-3n-3e in Contra Costa County. Reserve's test is three miles east of the southern end of the Rio Vista Gas Field.

Deep Gas Test

Shell Oil Company is grading roads and rig site for Stewart No. 1 located on the southeast quarter of Section 7-4n-1e in Solano County. The test is in the Denverton Creek

area and will be drilled to approximately 11,000 feet.

Butte County Wildcat

Occidental Petroleum Corp. is grading location for Chico Unit A No. 1 on the southwest quarter of Section 27-21n-1e, southeast of the town of Chico. This test is two miles northeast of the Durham Gas Field and will be a 7000-foot test.

Colusa County Test Shows Gas

Gulf Oil Corp. of Calif. is preparing to run a 7" protection string of casing on Capital Company No. 1 after the well blew out of control for a short time. Located on the northwest quarter of Section 22-17n-1w in Colusa County, the test had been drilled to 7062 feet when the blowout occurred.

Frankel Gas Test Abandoned

Donald Frankel, Operator, drilled to a total depth of 2800 feet on Mantelli No. 1 and after running logs plugged and abandoned the well. The abandonment was located on the southeast quarter of Section 26-19n-1w in Glenn County.

Shell Gas Test

Shell Oil Company has staked location for Schohr No. 22-16 on the northwest quarter of Section 16-13n-1e in Colusa County. Located in the Kirk area, projected depth of the well is 9000 feet.

Colusa County Abandonment

Occidental Petroleum Corp. abandoned Zumwalt No. K-2 after drilling to a total depth of 8720 feet. The test was located 2½ miles northeast of the Kirk Gas Field on the northwest quarter of Section 12-13n-1e.

Occidental Wildcat

Occidental Petroleum Corp. is grading rig site for Rodgers No. 1, a wildcat test located on the northeast quarter of Section 7-1n-8e in San Joaquin County. The test falls nine miles east of the town of Stockton and will be drilled to about 8500 feet.

COASTAL AREA

Two Offshore Tests

Standard Oil Company of Calif. has announced locations for two wells offshore from Gaviota in Santa Barbara County. Standard-Humble-Gaviota No. 10 will be drilled on projected Section 13-4n-32w and Standard - Humble - Gaviota No. 11 will be drilled on projected Section 10-4n-32w.

Offshore Test Suspended

Phillips Petroleum Company suspended State 2205 No. 9 at a total depth of 8709 feet. Location of the well is offshore from Naples in Santa Barbara County on projected Section 2-4n-30w.

Humble Oil Wildcat

Humble Oil & Refining Company is grading rig site for Berylwood Investment Company No. E-1 on the northeast quarter of Section 36-3n-20w. Humble's test is about three miles northwest of the town of Moorpark in Ventura County and will be drilled to approximately 8000 feet.

Pine Mountain Test Abandoned

Jupiter Oil Company abandoned Rains No. 1 due to mechanical trouble and moved one location to the north and west and is drilling on Rains No. 2, a 1000-foot test, at 450 feet. Rains No. 1, located on the southeast quarter of Section 12-6n-24w in Ventura County, was abandoned at a total depth of 1831 feet.

Coal Oil Point Offshore

Richfield Oil Corp. is preparing to drill Richfield-Honolulu-Signal-State 308 No. 3 in projected Section 36-4n-29w, offshore from Coal Oil Point in Santa Barbara County and southwest of the Elwood Field.

Gaviota Offshore

Standard Oil Company has announced a location for Core Hole No. 7R-72 offshore from Gaviota in Santa Barbara County. The test will be drilled on projected Section 8-4n-32w.

San Mateo County Wildcat

Neaves Petroleum Developments has staked location for Neaves-Chapero No. 1, a new pool wildcat test to be drilled on the northeast quarter of Section 20-7s-4w. Company tools will be used.

Bardsdale Outpost

San Marino Oil Company has staked location for Petan No. 1, a southwest offset to production to be drilled on the northeast quarter of Section 12-3n-20w.

Oxnard Field Outpost

Stateswide Oil Company is preparing to drill Maulhardt Community No. 1, an outpost test to the Oxnard Field production. The well, a 6800-foot test, is the first of a four-well program and is located on the southwest quarter of Section 36-2n-22w.

Simi Field Well

John Hetman is preparing to drill Well No. 1 located near the northwest corner of the intersection of Tapo and Walnut on Section 36-3n-18w, and ¼ mile south of production.

OTHER AREAS

Alaska

Richfield Oil Corp. has staked location for Duktoth River No. 1 near the center of the southeast quarter of Section 24-20s-15e, Copper River Meridian. This is Richfield's third test in the area.

In the Soldotna Creek area, Standard Oil Company of Calif. and Richfield Oil Corp. completed S.C.U. No. 12-4 flowing at a maximum efficiency rate of 850 b/d oil from a total depth of 10,974 feet. The completion is located on the northwest quarter of Section 4-7n-9w.

Standard Oil Company of Calif. and Richfield Oil Corp. drilled to a total depth of 11,240 feet on S.R.U. No. 23-15 and completed the well for 450 b/d oil. Location of the completion is on the southwest quarter of Section 15-8n-9w.

Montana

Sinclair Oil & Gas Company is moving in rotary to drill Hansen No. 1 located on the northeast quarter of Section 24-32n-58e in Sheridan County. Sinclair's location is east of the Signal Drilling & Exploration Company's recent discovery, Olson No. 1.

Calvert Exploration Co. has staked location for Siggaard-Federal Land Bank No. 1 on the southeast quarter of Section 2-32n-58e in Sheridan County. Located in the Dwyer area, the wildcat will test the Madison at about 8400 feet.

Signal Drilling & Exploration Co. completed Olson No. 1, a Sheridan County wildcat, flowing 275 b/d clean oil through an 18/64" bean from the Madison perforations 7810-7813 feet. Located on the northwest quarter of Section 24-32n-58e, the well was drilled to a total depth of 7937 feet and has 5½" casing cemented at 7929 feet.

Shell Oil Company completed Government-Warren No. 24-23 as a triple zone producer good for 200 b/d of 33 gravity oil with a 10 per cent cut from the Lodge Pole per-

forations 7994-7996 feet and 170 b/d of 32 gravity oil cutting 35 per cent from both the Silurian perforations 8131-8138 feet and the Red River perforations 8653-8655 feet and 8793-8795 feet. Located on the southwest quarter of Section 23-8n-59e in the Pennel Field of Fallon County, the well was drilled to a total depth of 8890 feet and after cementing 5½" casing at 8886 feet cleaned out cement to 8848 feet.

Nevada

Churchill Drilling Company has announced a location for a 10,000-foot wildcat test in Churchill County. The test, Barbara No. 1, is located on the northwest quarter of Section 21-20n-29e.

New Mexico

An outpost test to the present producing area of the Totah Field was completed by the Aztec Oil & Gas Company flowing 315 b/d oil through a 20/64" bean from the Gallup perforations 5164-5180 feet. Top of the Gallup was logged at 4795 feet. Total depth of the well, Haygood-G No. 23, is 5233 feet, with 5½" casing cemented at 5225 feet. The completion is located on the southeast quarter of Section 19-29n-13w in San Juan County.

El Paso Natural Gas Company completed Huerfano Unit No. 121, a San Juan County outpost test, flowing 9500 mcf of gas per day through a ¾" bean from the Dakota perforations 6636-6678 feet. An open flow established the potential at 21,000 mcf. Located on the northwest quarter of Section 27-26n-10w, 1½ miles west of the nearest Dakota production, the well was drilled to a total depth of 6803 feet and cemented 5½" casing at 6803 feet. Top of the Dakota was logged at 6630 feet.

Pan American Petroleum Co. is drilling below 3000 feet on Navajo-H No. 2 located on the northeast quarter of Section 24-29n-14w in San Juan County. Pan American will test the Gallup at about 5300 feet and the well is 1½ miles northwest of the nearest Gallup production at the Totah Field.

Utah

The California Oil Company's Arnold No. 21-15 was placed on production as a dual completion from the Ouray perforations 8616-8626 feet and from the Mississippian, perforated at intervals between 8403-8566 feet. Flow from the Ouray was 186 b/d of 50 gravity oil with a cut of 2 per cent. Flow was through a ½" bean with gas gauged at 320 mcf per day. From the Mississippian, flow was 430 b/d of 53 gravity condensate with a cut of 1 per cent through a 20/64" bean. Located in the Lisbon Field of San Juan County, the well was drilled to a total depth of 9050 feet and cemented 7⅝" casing at 9046 feet. Located on the northwest quarter of Section 15-30s-24e, the well logged the top of the Mississippian at 8998 feet and the top of the Ouray at 8605 feet.

W. L. Clarey and E. A. Reilley are preparing rig site for Federal No. 1 to be drilled on the southeast quarter of Section 26-43s-13w in Washington County. The wildcat location falls one mile north of the Arizona State Line and about 15 miles southwest of the Vergian Field, and will test the Cambrian at 6500 feet.

California Oil Company has announced a location for the first test on the proposed Muleshoe Unit in San Juan County. Rig site for Unit No. 1 will be on the northwest quarter of Section 2-28s-23e approximately 15 miles northwest of Lisbon. The well will test the Mississippian at about 9300 feet.

Wyoming

McCulloch Oil Corp. of California is drilling below 2000 feet on Government-Gentry No. 1 located on the northwest quarter of Section 3-56n-69w in Campbell County. The test is in the Rocky Point area and is scheduled to go to about 5500 feet.

With the completion of Arch No. 18-4-28, Forest Exploration Co. extended the Patrick Draw Almond production slightly over ½ mile to the east. Flow from the Almond perforations 5115-5134 feet was 320 b/d oil through a 1" bean with pressures of 50/500 psi. Located on the northeast quarter of Section 18-19n-98w in Sweetwater County, the extension test was drilled to a total depth of 5493 feet and cemented 5½" casing at 5481 feet.

True Oil Company et al completed Wolff No. 2 pumping 150 b/d oil from the Minnelusa perforations 9872-9886 feet. Top of the Minnelusa A Sand was logged at 9873 feet. True's completion is the first successful extension to the Rainbow Ranch discovery, Wolff No. 1. Wolff No. 2 is located on the northeast quarter of Section 35-49n-71w in Campbell County and was drilled to a total depth of 10,095 feet. 5½" casing is cemented at 10,025 feet.

Farmers Union Central Exchange has staked location for Government-Trowbridge No. 1, an outpost test to the Pawnall Ranch Minnelusa discovery. Located on the southwest quarter of Section 18-53n-69w in Campbell County, the well has a projected depth of 7550 feet.

Chandler and Simpson of Denver, Colorado, have announced locations for four Sweetwater County wildcat tests. Wallway-Government No. 1, located on the northeast quarter of Section 26-16n-101w will test the Baxter at 6300 feet and Wallway B-Government No. 1 is located on the southeast quarter of Section 32-17n-101 w and will test the Erickson at about 4300 feet. Holbeck-Government No. 1, a 3400-foot Erickson test, is located on the northeast quarter of Section 26-18n-100w, and Winegardner-Government No. 1 will be drilled on the northeast quarter of Section 12-20n-100w. It will test the Erickson at about 3500 feet.

A Currant Creek area wildcat will be drilled by Wm. Gruenerwald on the northwest quarter of Section 1-13n-107w in Sweetwater County. The well, Unit No. 4, will test the Tipton Tongue at 9800 feet.

Mobil Oil has staked location for Unit No. 22-19 to be drilled on the northwest quarter of Section 19-28n-113w in Sublette County. Mobil's test is in the Tip Top area and will go to about 14,000 feet in the Morrison. It will be the deepest well to be drilled in the area.

M K M Exploration Company is ready to spud Government-Trowbridge No. 1, a Niobrara County wildcat test located on the southwest quarter of Section 6-38n-65w. Proposed depth of the Dakota test is 8000 feet.

Humble Oil & Refining Co. is drilling below 8000 feet on Frenchie Draw Unit No. 1 after gauging a flow of 21 mcf gas on an open hole test of the interval 7724-7752 feet. Located on the northeast quarter of Section 21-37n-89w in Freemont County, the well is scheduled to test the Lance at 10,000 feet.

THIS LAUGH OFF!!

"Shay, lady, you're the homeliest woman I ever saw."

"Well, you're the drunkest man I ever saw."

"I know, lady, but I'll get over it in the morning."

Wife to husband, upon opening his anniversary present to her: "Oh, darling, a mink coat. Is it genuine mink?"

Husband: "Well, if it's not I'm out $25."

He: "Now what's wrong?"

She: "Why in the world don't you get some system about your clothes? Take me, for instance. I always wear my Sunday clothes on Sundays and my week day clothes on week days."

He: "May I come over on your birthday?"

John: "Daddy, what does it mean when the paper says someone went to the convention as a delegate-at-large?"

Father: "It means he went without his wife, son."

Two Hollywood producers were watching the star of a Las Vegas show. "I wonder who made her dress," said one of them admiringly.

"It's hard to say," said the other. "Probably the police."

The wife suing for divorce was telling her troubles in court. "We were happy for a year, your honor, and then the baby came."

"Boy or girl?" inquired the judge.

"Girl," the woman replied, "big, fat, blonde and painted, and she moved in next door."

She had begged her husband for months to go and have his photograph taken. At last, he decided to go through the agony and made the appointment with the photographer. But when the proofs arrived, his wife exclaimed in horror, "Oh, there's only one button on your coat!"

"Thank heavens," he said. "At last you've noticed it!"

A woman waiting at the door ready to go to the store had her arms full of coats and four little children at her side.

Her husband, coming down the stairs, asked why she was standing there. She replied, handing him the coats, "This time you put the children's coats on and I'll go honk the horn."

Insomnia isn't contagious unless the baby next door has it.

Just Say---

YES! You may send me the CALIFORNIA OIL WORLD for one year, for which I enclose $1.00.

Name.....

Address.....

City.....State.....

Position.....Company.....

Check branch engaged in Producing..... Refining..... Natural Gasoline..... Marketing..... Manufacturing.....

Subscriptions accepted only from persons actively connected with the oil industry.

CALIFORNIA OIL WORLD

2404 West 7th Street, Los Angeles 57, California

Magnificient

Laguna Beach

CALIFORNIA

In all the world there is no more beautiful setting for a perfect vacation...superb climate, breath-taking views, wonderful recreation. And the Surf & Sand offers the ultimate in accommodations ... Lanai Suites, apartments and spacious rooms, all fine hotel services, surfside pool, private beach, smart restaurant and cocktail lounge.

Free - write for colorful brochure and free travel guide.

MEMBER CONGRESS OF MOTOR HOTELS

the Incomparable

Surf & Sand HOTEL

Outrigger

1465 S. Coast Blvd., Laguna Beach, California.

Phone: HYatt 4-6574